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INCOMES AND LIVING COSTS
OF A
UNIVERSITY FACULTY

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A RESOLUTION

PASSED AT THE ANNUAL MEETING OF THE YALE UNIVERSITY CHAPTER OF
THE AMERICAN ASSOCIATION OF UNIVERSITY PROFESSORS,
NOVEMBER 14, 1927

WHEREAS the future of the profession of learning in America, both in respect to teaching and to productive scholarship, depends upon the quality and character of the men adopting it as their life work:

And whereas there is reason to believe that the economic conditions of this profession are now such as effectively to discourage many young men of high quality of intellect and force of character from adopting this profession:

And whereas in response to an offer of service by this section of the American Association of University Professors, the President of the University has suggested that a constructive study of this matter by us would be a valuable contribution:

Resolved that the executive committee is hereby authorized to make such a study and to report its results and recommendations to this section.

THE executive committee was further authorized to add to its numbers for this investigation.

COMMITTEE
ON THE ACADEMIC STANDARD OF LIVING
APPOINTED BY THE YALE UNIVERSITY CHAPTER
OF THE AMERICAN ASSOCIATION OF
UNIVERSITY PROFESSORS

ROSWELL P. ANGIER · PSYCHOLOGY

HERMAN H. CHAPMAN · FORESTRY

MAURICE R. DAVIE · SOCIOLOGY

SECRETARY AND STATISTICIAN

CLIVE DAY · ECONOMICS

SAMUEL W. DUDLEY · ENGINEERING

FRED R. FAIRCHILD · ECONOMICS

RALPH H. GABRIEL · HISTORY

AUSTIN M. HARMON · GREEK

SAMUEL C. HARVEY · MEDICINE

YANDELL HENDERSON · PHYSIOLOGY

CHAIRMAN

PERCEY F. SMITH · MATHEMATICS

WILLIAM R. VANCE · LAW

FOREWORD

THE problem presented by academic salaries is, in many ways, the most urgent now confronting American education. The nation, not less than the university and the college, is crucially concerned that the financial standards of these salaries shall be such that the ablest men, who otherwise have any inclination for a scholarly career, shall not be estopped from entering it by its sheer financial shortcomings. Plenty of competent men are quite ready to live themselves on extremely modest stipends in return for the intrinsic rewards which they find in a scholarly life. But they rightly hesitate to subject their wives to the prospect of hard and unremitting physical drudgery, and their children to the limitations of the underprivileged in a time of general financial prosperity.

Two major issues arise at once in any study of the problem. One is the question of fact. What are the actual conditions of life which are faced by academic men when they attempt to live within their salaries, and to what degree are they compelled to supplement these salaries by outside work? The other question is more difficult and has to do with the effort to determine what are reasonable economic and social standards with which academic salaries must comport, if men of high intellectual and moral quality are to be attracted into the career of teaching and scholarship in sufficient numbers to insure the maintenance of our institutions of higher education on a sound and dignified basis.

The present document constitutes a highly important contribution toward the solution of these two problems. It embodies the findings of a voluntary committee of the Yale Chapter of the American Association of University Professors, under the chairmanship of Professor Yandell Henderson, who, with the cordial approval of the President of the University, undertook to learn as fully as possible what are the actual financial and domestic conditions which confront the members of the Yale faculty. By methods which are described in their report, the Committee has secured from somewhat over 60 per cent of our faculty members statements dealing frankly and in the most

informing detail with various aspects of the situation. The conclusions and generalizations reached are necessarily made with due allowance for the considerable number of persons who did not see fit to respond, and also for such minor inaccuracies of report as must inevitably creep into data of this kind. But I think that when we have discounted all such considerations, the picture presented is extremely informing and one that will be helpful, not only at Yale, but also in the many other academic communities where conditions are roughly comparable.

I feel that the Committee, and the two hundred and seventy-two members of the faculty whose coöperation in supplying information furnished the basis of fact on which the conclusions rest, have put us all under great obligation in the accomplishment of a difficult and arduous undertaking involving much time and no little expense. I recommend to all of my colleagues a careful reading of the document.

JAMES ROWLAND ANGELL,
President of Yale University.

*New Haven,
June, 1928.*

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INCOMES AND LIVING COSTS OF A UNIVERSITY FACULTY

I.

THE PROBLEM AND METHODS OF INVESTIGATION

THE wage in any calling is generally an index of the ability that is considered necessary to do its work efficiently. If this index is applied to American universities, it seems to indicate that only a low grade of ability is expected of the profession of scholarship and teaching. Here indeed is a contradiction: for surely no one who has ever had contact with a university believes that men of mediocre or low ability can develop into inspiring teachers and productive scholars. A university staffed with a low grade faculty, even if housed in splendid buildings, would be a perversion of the purposes for which universities exist. Those who cherish the comfortable illusion that low salaries and high ability can coexist must assume that the relation of wage level and quality of personnel, which holds in most callings, does not apply to the profession of learning. It seems to be expected that universities will get better men than they pay for.

The Problem.

It is the primary purpose of this investigation to define the economic level at which the members of the faculty of this University are now living: in the long run their scale of living must determine whether or not men of ability will be deterred from serving the University. Something may be credited to idealism, something to the balance of advantages in the scholar's life; but accessory support of a more material character must also be available if the household bills are to be met. Unless the material conditions of academic life are comparable with what

men of ability can command in other callings, it is useless to expect that such men will give up that mode and level of living in order to serve a university.

More specifically, the object of this investigation is to answer such concrete questions as the following: Have any considerable proportion of the members of the faculty of this University sufficient private means to render them independent of the size of their salaries? How many have enough private income to supplement their salaries up to a sum sufficient for comfortable living at a professional level? How many are able to earn by extra teaching, by royalties from publications, or by technical work, a considerable supplementary income? Taking all sources of income together, what levels of living are the members of the Yale faculty now able to attain? How do these levels compare with those of members of other callings who are the professors' neighbors?

Methods of Investigation.

SEVERAL different lines of investigation were pursued in the attempt to answer these questions. Reports on the academic standard of living in other universities were examined; special studies were made of the housing conditions of the Yale faculty in comparison with their neighbors; data were collected on the salaries in other callings; the salary scale of Yale University was compared over a period of time with the cost of living. But most important of all, a questionnaire was prepared and sent to all members of this faculty. A copy of it is contained in the first appendix to this report. It asks for data on income from all sources, that is, salary, supplementary earnings, and private property; the principal items of expenditure; the annual savings or deficit; and the mode of life which the annual expenditure provides.

The returns received as compared with the number of men in regular status in the various grades of the faculty were as follows:

RANK	Number in Faculty List	Number Making Returns	Per Cent Making Returns
Instructor	148	94	64
Assistant Professor	119	78	65
Associate Professor	44	32	73
Professor	122	68	56
	<hr/> 433	<hr/> 272	<hr/> 63

These percentages are considerably higher than such questionnaires generally elicit; and the number of the returns is large enough and their distribution among the various ranks sufficiently uniform to afford a satisfactory sample for analysis. Five returns, in addition to the 272 above, came in too late to be included in the general analysis, but their data have been compared with the results of the analysis and found to be in close agreement. The account of the economic conditions of the faculty presented in the following pages is therefore broadly founded, presumably correct in its general aspects and accurate in its details.

The findings of this report are applicable not only to Yale but also to other institutions throughout the United States. This is borne out by their essential agreement with the results reached by the General Education Board,* in its recently published study, which is referred to in detail in Appendix C. That survey is based upon reports from 302 institutions and 11,361 members of university and college faculties, with respect to salaries, supplementary earnings, income from private property, and the relation of funds available for salaries to the size of the faculty.

* Trevor Arnett, *Teachers' Salaries in Certain Endowed and State Supported Colleges and Universities in the United States, with Special Reference to Colleges of Arts, Literature, and Science, 1926-1927*. Publications of the General Education Board, Occasional Papers, No. 8, New York City, 1928.

II.

ECONOMIC LEVELS OF THE YALE FACULTY MODES OF LIVING AND THEIR COSTS

IN order to convey the full significance and force of the results from the questionnaire bearing on the mode of living now maintained by the Yale faculty, it is essential to present nearly the entire mass of data. It will repay the reader to examine it, as set forth in the appendix to this chapter (Appendix A), rather than merely the tabulations and analyses in later chapters. As this information was confidential it is presented in such form as to maintain anonymity. The returns are arranged in fifty-four groups, each group containing the data of three to ten or more cases in which the economic and family conditions are closely similar. Above each group are placed the figures for the annual cost of its mode of life; and these figures are followed by those for salaries and other income, those for the principal expenditures, and lastly a description of the mode of life.

This material may be applied in at least three ways: (1) If anyone wishes to know the scale of living that a certain income now provides it will be found described under the figures at the head of one of the groups. (2) If one wishes to know what salary the University would have to pay in order to enable a member of the faculty without private means or supplementary earnings to live up to a certain level, that scale of living may be sought out among these groups, and the figures at the head of the group will define it. (3) If the younger members of the faculty, or any others considering teaching as a profession, wish to estimate what their own economic status will be in future years, taking into account such private incomes as they may have or expect and their capacity for outside earnings, they may here obtain this information alike for the bachelor, for the married man, and for one with children to support and educate.

At first sight these data seem somewhat dry, but they acquire interest if the reader will keep in mind such questions as the following: At what economic level is an unmarried man of

thirty or forty or fifty comfortable and able to indulge reasonable desires for relaxation and travel? What is the cost of a life of corresponding comfort for men who are married but childless? What is the cost for those who have families of young children? What is the cost for those whose children are at the preparatory school, college, or professional school ages?

Connected with this last question is one of rather wide interest: What is the economic level at which a home in a ten-room house, with at least one full-time servant and some additional service, can be maintained, and three children sent through college? On the basis of salary, what is the percentage by which even the highest paid professor falls short of this level? By how much more are the professors who receive average or minimum salaries below this level?

The topic of vacation is also one upon which these data throw an interesting light. It is popularly assumed that the members of the faculty are free from all work during three months of the year. The long vacation period is sometimes cited as a compensating factor for the low salaries that are paid. The facts, however, show that many of the faculty must use part or all of this time for gainful employment to eke out their University salaries. Another view of the matter is that the official University vacation is the time when the members of the faculty can be free to devote themselves to productive scholarship. But again, they can thus apply themselves only on condition that their salaries and supplementary incomes support them and their families through the summer; otherwise this time is perforce used to do whatever work, often non-scholarly, will afford the additional funds necessary to maintain the standard of living required by their position. This situation has an important bearing upon the productiveness of American scholarship.

A general idea of the amount of private property which the younger men will have when they become full professors ten or twenty years from now, may also be obtained from the showing which these younger men now make of surplus and deficit, the gifts which they receive, and the dependents whom they support.

As a population or group maintains its numbers only when

a sufficient proportion of its members marry and have three or four children, the small number of faculty families of this size is worthy of note.

The most significant aspect of the mode of life of a family is the amount of service that they can afford. In Europe the sharpest line of demarcation between classes is that above which at least one servant is regularly employed, and below which the wife does the cooking and other household work. Below it is the mechanic class; above it the professional class. The financial level at which the line of demarcation falls among the members of the faculty will be found highly instructive in respect to the conditions in American life which universities must meet, if their professors are to live at the level of the professional and other moderately well-to-do classes.

Economic Levels as Modes of Living.

AN outline of the returns will here be given; the detailed data are reported in Appendix A. Both here and in the appendix all the members of each group are of the same marital status: single; married without children; married with one child, with two children, with three or more children. Inspection of this outline will show, as examination of the detailed data in the appendix will confirm, that the pictures presented by the married groups afford a marked contrast to those for the unmarried. On this evidence the cost of a monastic educational institution is not more than half that of a university in which the teachers are able to lead normal lives at a reasonable economic level.

The various levels of living will be here presented in a series of word pictures correlated with the incomes necessary to maintain such levels under the conditions in New Haven now. These levels as listed in the left-hand column are not merely salaries but are the sum total of all means of support: salary, plus supplementary earnings, plus income from private property or expenditure of some of its principal, plus money borrowed (in some cases) to meet the expenses of childbirth and surgical operations. The economic levels and "incomes" in this sense are practically equivalent to total living costs when the cost is taken to include a small amount (up to 10 per cent) of savings in good

years to meet emergencies and balance deficits in bad years. The salaries in all cases are less than the amounts corresponding to the economic levels.

THE COST OF VARIOUS MODES OF LIVING.

Economic level, total income, and cost of living	Salary	<i>Mode of Living</i>
\$ 2,000	\$ 1,800	At this level even a man who has only himself to support is under pressure to supplement his salary by outside work. If \$300 or \$400 is spent on books, recreation, and travel he comes out at the end of the year about even or has an equal chance of a small surplus or deficit. (See economic groups I, III, Appendix A, page 103.)
\$ 2,500	\$ 2,100	For a man and wife this level represents life at the cheapest and barest with nothing over for the emergencies of sickness or childbirth. (See economic group II.) For an unmarried man the pressure for supplementary earnings is not considerable. He is able to pay off debts previously incurred for education or to save \$500 or sometimes even to go to Europe for the summer. (See economic group VI.)
\$ 3,000	\$ 2,500	A man and wife must live with extreme frugality, and find work during the summer. (See economic group II.) For an unmarried man there is at this level no great surplus, but a comfortable life. (See economic groups VI, IX.) For a man and wife it is life on the simplest plane with little money for books and nothing for recreation or savings, other than \$200 or \$300 for insurance. All obtainable outside work for man or wife is welcome. Yet they may have a low-priced or second-hand car. (See economic groups VII, XII.)
		If a child is born the expense is \$300 to \$500, unless the wife goes to the public ward of the hospital. They live with the minimum of paid service, the wife doing all the cooking, washing,

Faculty Incomes and Living Costs

<i>Economic level, total income, and cost of living</i>	<i>Salary</i>	<i>Mode of Living</i>
		and housework, essentially as in the household of a mechanic, but with considerably greater expenses to keep up appearances. (See economic groups VIII, X.)
\$ 4,000	\$ 3,000 to \$ 3,500	Most of the unmarried men at this level have cars or annual savings up to \$1,500. One says that he "lives comfortably and can waste money with impunity." (See economic group XVI.)
		The married men at this level are usually of assistant professor rank, often with families of young children. They must live with extreme economy in the cheapest obtainable apartment, borrowing to meet expenses of childbirth or sickness. The wife does all the cooking, housework, and laundry. As one man says: they "economize until it hurts." At about this level, if they live in the suburbs where rents are lower, they may have a car, which is practically a necessity though it also serves as a means of recreation. (See economic groups XIV, XVII, XVIII, XIX.)
\$ 5,000	\$ 3,500 to \$ 4,000	On this income the unmarried man lives without self-denial. He may go to Europe in the summer or have a surplus up to \$2,000. (See economic group XXI.)
		Married men with no children can live simply in a four- or five-room apartment in a good neighborhood. If the wife does all the housework they can save up to \$800 or \$1,000 in years when there is no sickness. (See economic groups XX, XXIII.)
		The men at this level are usually assistant or associate professors. If they have a wife and a couple of young children they must devote all their spare time and strength during the entire year to extra earnings. Even when the wife does all the housework they achieve nothing better than "hand to mouth living" or, as another expresses it, they "can afford almost no books, attend no professional gatherings unless close at hand. Cannot go to theater except in the gallery"

*Economic level,
total income,
and cost of
living*

Salary

Mode of Living

to look down on the students in the orchestra seats, where the teachers cannot afford to sit. "The needs of a growing family keep growing." At this level and upward many have cars, as the one means of pleasure for the whole family, and because it enables them to live where rents are lower. (See economic groups XXII, XXIV, XXV, XXVI.)

\$ 6,000 \$ 4,000

With further rise of income to this level the unmarried men, now in general nearing their fortieth year and in assistant or associate professor rank, allow themselves somewhat larger expenditures than before, but have a surplus for recreation, travel, or savings of about \$2,000. (See economic group XXVIII.)

The married man with no children may at this level live simply, paying \$1,200 a year rent for a five- or six-room apartment in a good neighborhood. If his wife does all the housework they may save \$1,000; or they may have one regular servant (wages \$600 to \$850) and pay \$250 to \$500 yearly premiums for insurance. (See economic group XXVII.)

At this level the family containing young children can "barely break even" if the wife does all the housework. They often have, however, a cheap or moderate priced car. College vacations and all spare time are used for extra earnings. (See economic groups XXIX, XXX, XXXI.)

\$ 7,000 \$ 4,500

On rising to this level by promotion and increase of salary, unmarried men, and men with a wife but no children, add a little to regular expenditures. For the unmarried men any excess over \$5,000 is available for the indulgence of taste in books, theaters, and travel, or for savings. For those married but childless the greater part of the excess over \$6,000 is available for savings or the employment of a servant. (See economic groups XXXIII, XXXVI.)

*Economic level,
total income,
and cost of
living*

Salary

Mode of Living

At this level the family containing two or three young children, or children of school age, can make ends meet only by keeping the expense for service as low as possible, although a few at this level begin to have a full-time servant. Usually the wife not only takes entire care of the children, but does the cooking and housework, and often also the washing and ironing (with electric machines bought on the installment plan), or contributes some supplementary earnings (up to \$1,000) to the family budget. Such families often have a car, particularly if they live in the suburbs, but there is no indulgence in any other item not strictly necessary. Up to the ages common at this level the expenditure for education of children is not usually more than \$100 or \$200, as they are either too young to go to school, or are necessarily sent to the city schools. An associate professor living in this way says: "The necessity of continually seeking outside work interferes with research. Interference with research means slower promotion. Slower promotion means more work outside to get a living." (See economic groups XXXII, XXXIV, XXXV, XXXVII.)

\$ 8,500 \$ 3,000
 to
 \$ 8,000

Families with one young child at this level generally have a full-time servant, and yet are able to show an annual surplus to meet emergencies up to \$2,000. (See economic group XXXVII.)

The families of associate professors and the younger full professors at this level, with three children and school expense from nothing up to \$1,000, may either have a full-time servant or spend only \$200 to \$400 for occasional service. They live on the edge of a deficit. Even a small insurance premium is paid with difficulty and the purchase of clothing is kept as low as possible. (See economic groups XXXVIII, XXXIX, XLII.)

Economic Levels of the Yale Faculty

11

*Economic level,
total income,
and cost of
living*

Salary

Mode of Living

Families with three children of preparatory school and college age at this level must generally maintain the "mechanic type" of home. The wife does the housework with only partial and occasional hired help; and there is no surplus even when extreme economy is practiced. The expenses of the children at school or college, even when they contribute to their own support, absorb all funds over and above the sum essential to the maintenance of the home. Most of the men living in this way are full professors. (See economic groups XXXIX, XLII.)

\$10,000 \$ 5,000
 to
 \$ 8,000

In families at this level, if the children are not beyond school age and can therefore live at home, a servant may be employed, and a car may or may not be afforded. But there is, in addition, no money for relaxation, books, or vacations, nor a surplus to meet illness and other contingencies. If the children are of an age to be sent to boarding school or college, these expenses draw up to \$3,000 out of the family budget, and the home expenses must be greatly curtailed. (See economic groups XLIII, XLIV, XLV, XLVII.)

\$12,000 \$ 5,000
 to
 \$10,000

The men at this level are generally full professors fifty years of age or more, with twenty-five years of service behind them. They generally own their homes. During the decade while their children are going through preparatory school, college, and professional school, the educational expenses cut into the budget so that there is no surplus for emergencies, nor funds for secretarial service or books. Clothing is limited; often the life insurance that can be kept up is inadequate. As one man expresses it, he has been "drained dry by the education of (his) children, although the wife and family have done most of the housework." (See economic groups XLVII, XLVIII, L, LII.)

<i>Economic level, total income, and cost of living</i>	<i>Salary</i>	<i>Mode of Living</i>
\$10,000 to \$16,000	\$ 7,000 to \$ 9,000	The number of men able to live at this level is small. As nearly as can be estimated, if they own their homes, they can spend \$1,200 a year for service (one full-time servant plus part-time service); and the children can be sent to first-class preparatory schools and to college. During their time in college and professional school the children can have allowances enabling them to live on a par with the general run of students in this University. (See economic group LII.)
\$15,000 and over	\$ 5,000 to \$ 8,000	This level permits the family to live comfortably but not extravagantly by New Haven standards, to travel and spend freely on theaters and recreation. The education of children may run between \$2,000 and \$5,000, but the home is well maintained and there are two full-time servants and some other service. (See economic groups LIII, LIV.)

Summary of the Modes of Living and Their Costs.

THIS condensation, or outline, of the returns from the questionnaire shows that the present scale of salaries affords good conditions for a scholarly life for an unmarried man; but a distinctly meager existence in all grades for a man and wife with no children. For a family including three or four children between fifteen and twenty-four years of age, that is, the family of a full professor fifty years of age with twenty-five years of service behind him, the salaries afford a wage which falls considerably short of supporting a scale of living comparable to that of fairly successful men in other professions.

Taking into account the expenses to which his position subjects him and judging by the home that he is able to maintain, the American university teacher in many cases lives essentially as do men of the skilled mechanic class. A university teacher

undoubtedly belongs in the professional class, but it is a matter of opinion as to just where in that class he should be placed; and age is an element that must be taken into account. It would perhaps be generally conceded that a reasonable standard for the economic level for a professor after twenty-five years of service would be the amount of money necessary to maintain a home in a ten-room house, which he owns free of mortgage, to keep one servant and pay for some occasional service, and to provide an education for his children in preparatory school, college, and professional school on an equality with that obtained by the general run of students in this University. From the costs of various modes of living shown above, it appears that life at this level in New Haven now comes to about \$15,000 or \$16,000 a year. At present if a professor receives the minimum pay of his rank, his salary is about one-third of such an imaginary standard. If he receives one of the higher salaries now paid to some academic professors he receives about half of this standard. If he has the pay of a professor of law, his salary is about two-thirds of this standard. For men at ages of thirty to forty-eight years, *i.e.*, the assistant and associate professors with children coming up to school age, the smallest salaries that would permit those with no private income to devote their time and energy wholly to teaching and scholarship would be \$6,000 to \$8,000.

Evidently even the highest paid professor now, if he has no private income or supplementary earnings, is in an extraordinary position in relation to the purchase of his own product. Without excessive curtailment of the budgetary needs for the maintenance of a home, the university man cannot buy for his children such education as he and his colleagues produce. His children go to college, but in order that they may go the strictest economy must be practiced, or the student is compelled to support himself. By so much is the university professor of today short of being in what may be called the "college-able" class.

III.

MARITAL STATUS AND SIZE OF FAMILIES AND A NOTE ON THE STATISTICAL METHODS APPLIED

THE returns from the questionnaire show that the salaries paid by the University are in many cases sufficient to afford comfortable support for those members of the faculty who are single, but meager conditions for those who are married. It is important therefore at the outset to determine the proportions of the single and the married, the childless and those with children.

Marital Status and Number of Children.

Of the faculty replying to the questionnaire (272 in all, or 63 per cent of the total list), about three-quarters are married. The percentage of those married increases with increase of rank, being fifty-two for instructors, seventy-six for assistant professors, eighty-one for associate professors, and ninety-seven for full professors. More than a quarter of the married faculty replying have no children, the childless state being especially characteristic of the instructors, while of those faculty members having children the average number is exactly two. Cases of three children are fairly common only among the full professors, and there they are only slightly more common than cases of two children. The replies further show but 3 per cent of the faculty with as many as four children, and not a single case of more than four children. Taking into consideration the married who are childless, the average number of children for all married members of the faculty replying is less than two. To this consideration should also be added the fact that one-quarter of the faculty is single.

The percentage single is greatest in the case of the instructors, nearly half of whom are unmarried although of marriageable ages (median age 28.5). Their median salary, which as will be seen later (Table V) is only \$2,000, practically prohibits

TABLE I

PERSONAL AND FAMILY DATA CONCERNING FACULTY MEMBERS

RANK	Total Number Replying	Per Cent Replying	Median Age	Per Cent Single	Per Cent Married	Average Number of Children per Member	Per Cent of Married Faculty Having a Given Number of Children						
							No Children	One Child	Two Children	Three Children	Four Children		
Instructors . . .	148	94	63.5	28.5	48	52	0.75	1.37	44.9	34.7	20.4	..	..
Assistant Professors .	119	78	65.5	34.5	24	76	1.50	1.98	23.8	23.8	33.9	15.2	3.3
Associate Professors .	44	32	72.7	43	19	81	1.58	1.95	19.2	30.8	26.9	19.2	3.9
Full Professors . .	122	68	55.7	52	3	97	1.89	2.34	19.7	13.6	30.3	31.8	4.6
Total	433	272	62.8	33	26	74	1.45	2.00	27.0	24.0	28.5	17.5	3.0

their marrying unless they already have a private income or can acquire one by marriage.

Dependents.

WHEN considering the incomes and expenditures of the faculty, whether married or single, it should be remembered that nearly 30 per cent of them have one or more persons (not including wife and children) dependent upon them, wholly or partially, for support. This additional drain on the income falls especially on the associate and full professors.

Note on the Statistical Methods Employed in This Report.

THE use of averages is justified when the cases are not widely dispersed. They are especially significant when the cases are concentrated about a central point. In general, such concentration is characteristic of the data in this study of incomes and expenditures. Statistical averages—the median, the mode, and the arithmetic average—are used to give a concise picture of a mass of data that cannot otherwise be grasped as a whole.

Of the three averages, the median is here chosen in preference to the other two because the median is generally recognized by statisticians as the most valuable for practical use and as decidedly superior to the mode or arithmetic average in studies of wages, incomes, distribution of wealth, etc. The median is the central item of a consecutively arranged series of figures.

In this particular study the mode (the most frequently recurring item) cannot be generally used for the reason that in many of the faculty groupings the number of cases is too small and the distribution is so even throughout that no modal class exists. For instance, in the salaries of instructors there are three distinct modes no one of which represents the whole group as well as does the median.

In selecting a representative measure of total income the median is especially advantageous because it is not affected by extreme items. For example, if the median of a group is found to be \$2,500, an extreme item of \$50,000 has no more effect on the location of the median than one of \$2,600. On the other

TABLE II

DEPENDENTS OTHER THAN WIFE AND CHILDREN

NUMBER OF FACULTY HAVING DEPENDENTS

RANK	One Dependent		Two Dependents		Three Dependents		Four or More Dependents		Total Number of Faculty Having Dependents	Total Number Reporting
	Wholly Supported	Partially Supported	Wholly Supported	Partially Supported	Wholly Supported	Partially Supported	Wholly Supported	Partially Supported		
Instructors	7	9	..	2	..	1	1	1	21	94
Assistant Professors .	5	5	1	7	..	1	..	..	19	78
Associate Professors .	4	4	1	3	..	..	..	1	13	32
Full Professors . . .	7	9	1	6	..	1	..	2	26	68
Total	23	27	3	18	..	3	1	4	79	272

hand, the arithmetic average in such a group would be raised and the picture distorted considerably by one large item. Further, the arithmetic average would have been ineffective in several cases where the relative, but not the actual, size of an item was indicated, as in the case where one person reported a total income "too large to mention."

Another reason for using the median is that similar studies, such as Peixotto's *Getting and Spending** and the *Study of Engineering Teaching Personnel*† by the Society for the Promotion of Engineering Education, employ this method, and the comparison of results is thus facilitated. (See Appendix C.)

* Jessica B. Peixotto, *Getting and Spending at the Professional Standard of Living; a study of the costs of living an academic life*. New York. The Macmillan Company, 1927.

† The Society for the Promotion of Engineering Education, *A Study of Engineering Personnel*. Bulletin Number 4 of the Investigation of Engineering Education. Lancaster (Pa.), 1926.

IV.

INCOME OF THE FACULTY FROM SALARIES

THE total income of the faculty is made up from (1) salary, (2) supplementary earnings, and (3) income from property, gifts, and similar sources which may be termed "unearned."

Income from Salary.

THE normal salary scale of the Yale undergraduate schools is at present (college year 1927-1928) as follows:

Instructors:

- 1st year, \$1,500 (appointments at this salary now uncommon)
- 2d year, 1,800 (now the usual initial salary)
- 3d year, 2,100
- 4th year, and thereafter \$2,500 (in a few exceptional cases \$3,000)

Assistant Professors:

- 1st appointment, 3 years, \$3,000
- 2d appointment, 3 years, 3,500
- 3d appointment, 3 years, 4,000
- In a few exceptional cases \$4,500 and \$5,000

Associate Professors: \$4,000 or \$4,500 and \$5,000

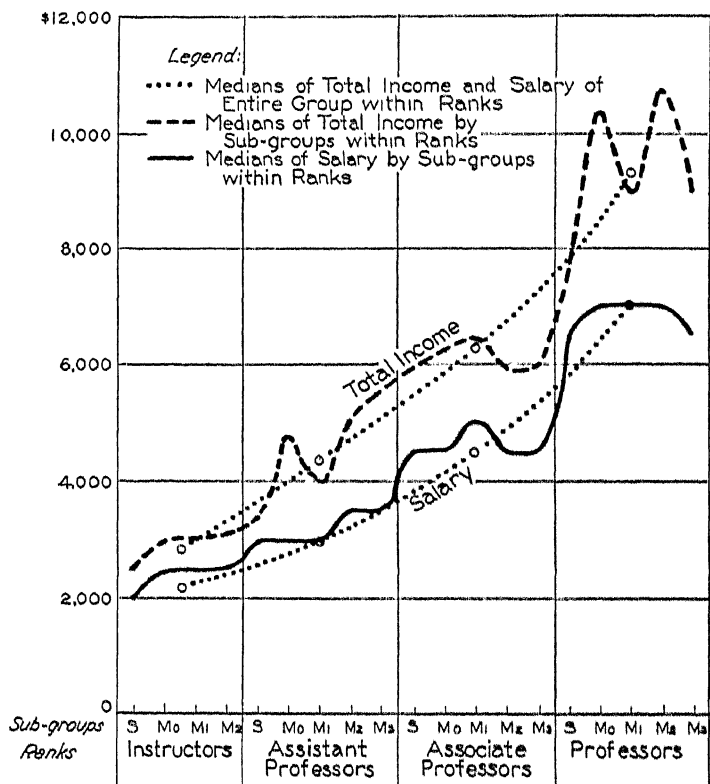
Professors: \$5,000 to \$8,000

(The salary figures given in this report are correct as of May 1, 1928. Immediately thereafter an increase of \$500 was made to assistant professors and associate professors in each grade, and the minimum professorial salary was fixed at \$6,000.)

In the professional schools the salary scale is generally higher. In all schools there are exceptional cases due to peculiar and temporary conditions, eccentric grades, or payment from special funds. The general situation is best described by a table on page 22, which shows the number of the faculty replying to the questionnaire who receive a given salary.

The extent to which the members of the faculty must in general rely on their University salaries and conversely the extent to which they supplement these salaries from all other sources of income are matters of primary importance. It is of particular

Figure 1

RELATION OF SALARY
TO TOTAL INCOME

Legend:

- S - Single
- Mo - Married, childless
- Mi - Married, one child
- M2 - Married, two children
- M3 - Married, three or more children

interest to note that in the total income of the members of the faculty replying to the questionnaire, salary is by far the largest item; the amounts received from supplementary earnings and from property, gifts, and other sources are, on the whole, relatively small. In the case of the instructors, the salary comprises 82 per cent of the total income; with assistant professors it is 80.5 per cent; with associate professors, 77 per cent; and with full professors, 72 per cent. In obtaining these figures, the percentage of salary to total income was ascertained for each individual case, and then the median of these percentages was taken for each rank.

TABLE III
RELATION OF SALARY TO TOTAL INCOME

<i>RANK</i>	<i>Number Replying</i>	<i>Median Per Cent of Salary to Total Income*</i>
<i>Instructors, Total</i>	94	82
Single	45	84
Married, Childless	22	79
Married, with Children . .	27	83
<i>Asst. Professors, Total</i> . . .	78	80.5
Single	19	83
Married, Childless	14	70
Married, with Children . .	45	75
<i>Assoc. Professors, Total</i> . . .	32	77
Single	6	84.5
Married, Childless	5	81
Married, with Children . .	21	75
<i>Full Professors, Total</i> . . .	68	72
Single	2	83
Married, Childless	13	78
Married, with Children . .	53	70

* This has been arrived at by ascertaining the per cent of salary to total income in each individual case, and then taking the median of these percentages.

With increase in rank goes a decreasing proportion of total income derived from salary, which indicates that, while both

TABLE IV
NUMBER OF FULL-TIME FACULTY RECEIVING
A GIVEN SALARY

<i>Salary</i>	<i>Instructors</i>	<i>Assistant Professors</i>	<i>Associate Professors</i>	<i>Professors</i>
\$10,000	..	..	..	2
9,000	..	..	..	2
8,500	..	..	..	2
8,000	..	..	..	6
7,500	..	..	..	5
7,000	..	2	..	19
6,500	..	..	..	8
6,000	..	2	2	10
5,500	..	..	1	3
5,200	..	..	..	1
5,000	..	1	8	9
4,750	..	..	1	..
4,500	..	6	13	1
4,000	1	11	6	..
3,900	..	..	1	..
3,500	2	14	..	..
3,200	..	1	..	..
3,000	4	33	..	..
2,900	..	2	..	..
2,800	1	1	..	..
2,700	3	1	..	..
2,500	33	2	..	..
2,400	1	..	..	..
2,300	1	1	..	..
2,200	2	..	..	..
2,100	14	..	..	..
2,000	6	1	..	..
1,800	14	..	..	..
1,600	6	..	..	..
1,500	6	..	..	..
<i>Total Number Replying</i>	94	78	32	68

salary and all other income increase with rise in rank, the rate of increase of other income is greater than that of salary. In all ranks the salary of the unmarried members constitutes a larger percentage of total income than is the case among the married. This suggests that the expenses of family life tend to force the married faculty members to secure supplementary income, or that only those with the larger supplementary incomes feel themselves able to assume family responsibilities. In either case there appears a definite correlation between increasing supplementary income and marital state.

The salary most frequently reported by instructors replying to the questionnaire is \$2,500 (thirty-three out of the ninety-four cases); the median is a little less, or, \$2,200. Reference to the accompanying table makes clear that the bulk (fully 75 per cent) of the cases fall between \$1,800 and \$2,500. Salaries below or above this grouping are exceptional.

The assistant professors show the greatest variation of all ranks. The median and also the most frequent salary received by persons in this group is \$3,000. Only eight of the seventy-eight assistant professors replying receive less than \$3,000 and eleven more than \$4,000. These extreme cases may be explained by the peculiar circumstances of the positions.

The associate professors, probably because of their smaller number, exhibit the least spread—from \$3,900 to \$6,000—with \$4,500 as both the most frequent and the median salary. Practically all the cases here fall between \$4,000 and \$5,000.

With full professors the minimum is \$5,000, the maximum \$10,000, both the median and most frequent \$7,000. About ninety per cent of the sixty-eight cases fall in the grouping of \$5,000 to \$8,000.

Such is the salary situation of those who replied, and it is very typical of the whole group, for it agrees closely with the information concerning the entire teaching staff furnished the Committee by the Treasurer's Office of the University. It represents the financial rewards of extensive preparation, and, in many instances, of long periods of service. The age of the faculty is significant in this connection. The typical instructor is a person in his late twenties; the assistant professor is about

TABLE V
SALARY AND AGE OF FULL-TIME FACULTY

RANK	Number Replying	SALARY			AGE Median
		Minimum	Maximum	Most Frequent	
<i>Instructors, Total</i>	94	\$1,500	\$ 4,000	\$2,500	28.5
Single	45	1,500	4,000	1,800; 2,100; 2,500	28.5
Childless	22	1,600	3,000	2,500	28.5
Married	17	1,500	3,500	2,500	30.5
One Child	10	2,000	3,500	2,500	29.5
Two Children					
<i>Assistant Professors, Total</i>	78	\$2,000	\$ 7,000	\$3,000	34.5
Single	19	2,000	7,000	3,000	32.5
Childless	14	2,500	6,000	3,000	32.5
Married	14	2,000	4,000	3,000	33
One Child	20	2,700	7,000	3,000; 4,000	34.5
Two Children	11	3,000	5,000	3,000; 3,500	36.5
Three or more Children					
<i>Associate Professors, Total</i>	32	\$3,900	\$ 6,000	\$4,500	43
Single	6	4,000	5,500	4,000; 4,500	44
Childless	5	4,000	5,000	4,500	44
Married	8	4,500	6,000	4,500; 5,000	40
One Child	7	3,900	5,000	4,500; 5,000	44
Two Children	6	4,000	4,750	4,500	43
Three or more Children					
<i>Full Professors, Total</i>	68	\$4,500	\$10,000	\$7,000	52
Single	2	5,000	8,000	....	44; 61
Childless	13	5,000	8,000	7,000	55
Married	9	5,000	8,500	6,000; 8,000	56.5
One Child	20	5,000	9,000	7,000	52
Two Children	24	4,500	10,000	6,000; 7,000	48
Three or more Children					

thirty-five; the associate professor, forty-three; and the full professor, fifty-two. In a later section, on the salaries of persons in other callings and in particular those of practicing engineers in contrast to teachers of engineering, a comparison is made which shows that teachers as they grow older earn steadily less than graduates in practice and that the discrepancy becomes more pronounced the greater the number of years out of college. Other comparisons made in the same section disclose that a man, for example, of the age, experience, and training of a full professor commands a much higher salary in comparable callings. Thus as the men grow older their situation in relation to their peers in other callings grows worse. In no rank are the salaries of the members of the faculty sufficient to pay their living expenses. As Peixotto has shown in her study of conditions at the University of California, so here at Yale, in order to live even at the modest type of the professional standard which a university circle represents, supplementary income is needed.

A special computation has been made with a view to ascertaining, if possible, the degree to which salaries fall short of paying for the living expenses of the members of the faculty, as measured by the amount of supplementary earnings (a topic discussed in the next chapter) in those cases where the pressure to resort to outside earnings is probably the greatest. For this purpose there were selected those cases of the faculty who reported supplementary earnings as the only source of income additional to salary. The results show that for each rank the supplementary earnings of these cases average almost exactly 20 per cent of the salaries received. This may be taken as an indication of the minimal extent by which salaries are inadequate to meet the living expenses, on a modest standard, of those members of the faculty who lack independent income.

Salaries and the Changing Cost of Living.

THE foregoing paragraphs and the accompanying tables present the salary situation as it exists today. How does it compare with that of, say, fifteen years ago? Thanks to the efforts of the University administration and to the gifts of the alumni and

other generous friends of the University, salaries (in dollars) have increased greatly in the period since the World War. But has the actual purchasing power of salaries, particularly the present scale, kept pace with the rise in prices? The "cost of living" as calculated by the Bureau of Labor Statistics, has risen over 70 per cent as compared with figures before the war; these figures are based on an analysis of the expenditures of the working classes, and the increase would certainly be even greater for the academic group.

The index of the "cost of living" applies only to the essentials of life, such as food, clothing, fuel, and shelter. There are many other items in the professional standard of living to which the faculty strive, the costs of which have also increased. Wages of domestic servants, mechanics, and others have risen, and to the extent that the faculty are employers of labor they find their expenses increased. The cost of medical service has risen at the very time when the field of service has greatly widened. Tonsilectomy has become a common incident in the rearing of a family; appendectomy is far from extraordinary. Dentists, and particularly those members of the profession who practice orthodontia, have not been bound by a faculty scale in fixing their charges. Telephones and automobiles are among the other items in the faculty standard of living which includes wants and comforts formerly unknown but essential now. It may safely be asserted, then, that an academic salary that has not increased substantially more than 70 per cent since 1913 has fallen in actual purchasing power. To men now in the upper grades of the faculties this is a matter of grave importance; they chose the teaching profession and assumed the responsibilities of a family counting on the effective maintenance of the salary scale then existing.

The table on the opposite page shows the decline in purchasing power of salaries as compared with conditions before the war. If comparison were made with an earlier year the decline would be much more marked; prices of food rose over 50 per cent from 1900 to 1913, and salaries rose but little. Either salaries were much too high in 1900 and in 1913, or they are much too

TABLE VI

ACTUAL SALARIES SINCE 1913, AND SALARIES WHICH WOULD HAVE BEEN EQUIVALENT IN PURCHASING POWER TO THOSE PAID IN 1913.

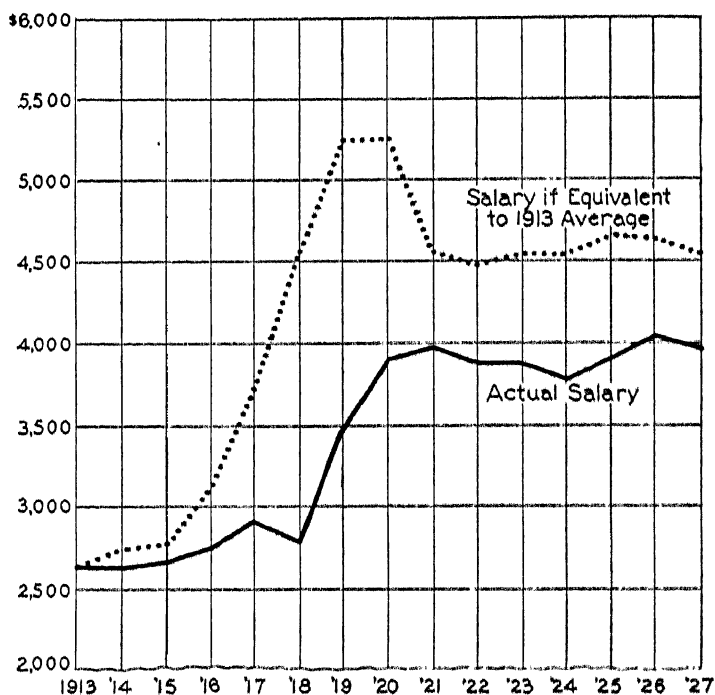
(Cost of living computed by U. S. Bureau of Labor Statistics for the working classes of the country as a whole. Figures of actual salaries refer to the entire faculty in the given years and were furnished by the Treasurer's Office of the University.)

Cost of living index	1913	1918	1919	1920	1927
	100	174	199	200	172
INSTRUCTORS					
Salary equivalent to 1913 average	\$1,317	\$2,292	\$2,621	\$2,634	\$2,265
Actual salary (average)	1,317	1,323	1,634	2,322	2,250
Ratio of actual salary to equivalent	100	58	62	88	99
ASST. AND ASSOC. PROFESSORS					
Salary equivalent to 1913 average	\$2,393	\$4,164	\$4,762	\$4,786	\$4,116
Actual salary (average)	2,393	2,332	3,116	3,510	3,785
Ratio of actual salary to equivalent	100	56	65	73	92
FULL PROFESSORS					
Salary equivalent to 1913 average	\$4,440	\$7,726	\$8,836	\$8,880	\$7,637
Actual salary (average)	4,440	4,291	5,992	6,014	6,502
Ratio of actual salary to equivalent	100	56	68	68	85
TOTAL AVERAGED					
Salary equivalent to 1913 average	\$2,639	\$4,592	\$5,252	\$5,278	\$4,539
Actual salary (average)	2,639	2,771	3,466	3,898	3,995
Ratio of actual salary to equivalent	100	60	66	74	88

Figure 2

SALARIES

ACTUAL SALARY (AVERAGE) AND SALARY
WHICH WOULD BE EQUIVALENT IN
PURCHASING POWER TO THAT PAID IN 1913



low today. If they were too low even in 1900 the situation is correspondingly worse now.

In the appendix to Chapter XI (Appendix C) are given figures for wages of union labor in New Haven, which show that they have more than kept pace with the cost of living.

The table on page 27 presents the cost of living index for the month of December of certain selected years from 1913 to 1927, with the living cost in 1913 as the base. For the same years there are presented, for each faculty grade, the average salaries paid by the University and the amounts equivalent in purchasing power to the salaries paid in 1913. This makes possible a comparison, for each of these years, of the salaries actually paid with the corresponding salaries which would have been required in order to permit the same living standards as were supported by the salaries paid in 1913.

This relationship during the entire period 1913-1927 is presented graphically on page 28.

The figures on page 27 are of great significance. They show that the faculty as a whole, in spite of considerable salary increases, is unable by 12 per cent to live upon its salaries so well today as it could in 1913, remembering always that the 1913 salary scale was already far below what would have enabled the faculty to live then as well as it did in 1900.

Interest attaches to the shifting relation between living costs and salaries from 1913 to 1927. The low point in this relation was in 1918, when a tremendous increase in the cost of living had as yet not been compensated by any material increase of salaries. In that year, the salary scale was insufficient for a standard of living two-thirds as high as was supported in 1913. During the next year came a considerable increase in the University's salary scale, but even so it was hardly sufficient to enable the faculty to maintain a living standard 70 per cent of that of 1913. Further salary increases about kept pace with the increase in cost of living to the climax of 1920. The improvement thereafter has been due primarily to the substantial decline of prices and only secondarily to higher salaries.

Equally significant is the analysis of these figures by faculty grades. It will be noted that the decline in ability to maintain

the earlier standard of living is more pronounced as the faculty rank rises. Instructors are able to live upon their salaries today at practically the same level as in 1913; assistant and associate professors have dropped 8 per cent; while full professors have lost 15 per cent. In other words, salary increases since 1913 have been relatively greatest for instructors and least for full professors. This development is of interest in connection with another movement to which attention is called elsewhere in this report; *i.e.*, the change which has been going on in the composition of the faculty, whereby the proportion of full professors has declined and the proportion of instructors increased. These two movements taken together are evidence of that decline in quality, as measured by experience and rank, with increase in quantity of the teaching staff which has apparently resulted from an inadequate salary scale.

V.

INCOME OF THE FACULTY FROM SUPPLEMENTARY EARNINGS

THERE is a general impression, even within the University, that many members of the faculty earn large sums for extra teaching and lectures and for other outside work such as magazine articles, technical advice, royalties on books and inventions, and payment for other activities. It is even suggested sometimes that such outside work should be restricted or forbidden. The facts as shown by the returns from the questionnaire, regarding the supplementary earnings of members of the faculty, including the earnings of their wives, are as follows.

Fees constitute the main source of supplementary earned income for all ranks. Extra teaching is the source next in importance in the two lower ranks, while royalties have the secondary place for the two upper ranks.

The median amount earned by extra teaching, chiefly in summer schools, is for instructors, \$345; for assistant professors, \$350; for associate professors, \$600; and for full professors, \$500.

Fees and similar earnings show a range, in median amounts, from \$275 for instructors, to \$400 for assistant professors, \$350 for associate professors, and \$500 for full professors.

Royalties vary in median amounts from \$50 for instructors reporting such income, to \$100 for assistant professors, \$500 for associate professors, and \$300 for full professors.

In thirty-three cases a source of additional income is furnished by the earnings of the wife. The median amount of such earnings is \$500 for the wives of instructors reporting such income, \$800 for those in the assistant professor rank, \$175 for the associate professor group, and \$1,100 for the full professor group. In seven instances the only supplementary earnings are those of the wife.

The median amount of supplementary earnings from all sources is for instructors \$300, for assistant professors \$375, for associate professors \$375, and for full professors \$500.

TABLE VII
SOURCE OF SUPPLEMENTARY EARNINGS
OF FULL-TIME FACULTY

	Number Reporting		Median Amount from all Sources
	No Sup-plementary Earnings	Having Supple-mentary Earnings	
Instructors	41	53	\$ 300
Assistant Professors	23	55	375
Associate Professors	7	25	375
Full Professors	15	53	500

EXTRA TEACHING

	Number	Minimum	Maximum	Median
Instructors	23	\$ 30	\$ 1,100	\$ 345
Assistant Professors	21	100	5,600	350
Associate Professors	7	100	800	600
Full Professors	6	250	1,000	500

ROYALTIES

	Number	Minimum	Maximum	Median
Instructors	2	..	..	\$ 50
Assistant Professors	11	\$ 20	\$ 4,500	100
Associate Professors	15	10	1,500	500
Full Professors	35	25	7,200	300

FEES AND OTHER EARNINGS

	Number	Minimum	Maximum	Median
Instructors	36	\$ 15	\$ 6,500	\$ 275
Assistant Professors	45	30	3,000	400
Associate Professors	18	100	5,000	350
Full Professors	42	50	45,000	500

WIFE'S EARNINGS

	Number	Minimum	Maximum	Median
Instructors	13	\$ 50	\$ 2,100	\$ 500
Assistant Professors	8	50	2,400	800
Associate Professors	5	100	1,000	175
Full Professors	7	300	4,000	1,100

The range and amount of supplementary earnings, first including the earnings of the wife, then excluding such earnings, are presented in the following table.

TABLE VIII
SUPPLEMENTARY EARNINGS
(Including earnings of wife)

		Number	Per Cent
Members of the faculty with	{ no supplementary earnings	86	32
	{ from \$1 to \$499	63	23
	{ from \$500 to \$999	54	20
	{ from \$1000 to \$1999	38	14
	{ from \$2000 to \$3999	16	6
	{ from \$4000 to \$7999	12	4
	{ from \$8000 upward	3	1
		<hr/> 272	<hr/> 100

SUPPLEMENTARY EARNINGS
(Excluding earnings of wife)

		Number	Per Cent
Members of the faculty with	{ no supplementary earnings	93	34
	{ from \$1 to \$499	68	25
	{ from \$500 to \$999	51	19
	{ from \$1000 to \$1999	35	12
	{ from \$2000 to \$3999	11	4
	{ from \$4000 to \$7999	12	5
	{ from \$8000 upward	2	1
		<hr/> 272	<hr/> 100

These figures show that 32 per cent of the members of the faculty replying to the questionnaire have no supplementary earnings; another 23 per cent earn less than \$500 a year each, over and above their salaries; 75 per cent earn less than \$1,000; 89 per cent less than \$2,000; 95 per cent less than \$4,000. Is this the best that these men, even with the help of their wives, can do to supplement their University salaries? In seeking to

answer this question it should be recognized that of those who earn nothing, some are doubtless so well situated with regard to income from private property as to be above the need of exerting themselves for supplementary earnings. On the other hand, it is certain that many are in need of additional income but are unable to secure remunerative work outside the University. Many of the replies to the questionnaire referred to the difficulty of obtaining remunerative work and indicated willingness to seize every possible opportunity for outside earnings. On the other hand, those members of the faculty who earn anything outside show by that very fact that they feel the need of such income. A careful examination of the whole mass of returns from the questionnaire indicates that in the cases of at least 70 per cent of those who replied, financial pressure forces the exploitation of every opportunity that spare time allows to supplement the University salary by outside work. On the whole it seems fair to conclude that the great majority of the faculty are earning outside about as much as they can.

This evidence stands in direct opposition to the proposition once seriously advanced, that as universities are in the general class of eleemosynary institutions, their salaries should be merely retaining fees and the staff should earn its living largely by work outside during vacation and in the intervals between lectures. It denies the widely held belief that many members of the faculty are easily able to supplement their salaries to large amounts. Even the highest paid expert rarely receives more than \$100 a day, and such days in any one year are few. In most cases outside work involves a large expenditure of time and strength to earn a rather small amount of money. Not only is it usually poorly paid, it is frequently of a tedious, or otherwise unpleasant, character. It often interferes with University work in respect to productive scholarship, although rarely in respect to teaching. Yet if it were not done, a considerable percentage of the faculty would be forced to leave the University. The suggestion that supplementary earnings should be limited is therefore now impracticable; for under present conditions this income is as essential to the support of the University as if it figured in the treasurer's report.

The figures given here, together with other evidence to be reported later, indicate also that in most cases any outside work that interferes with teaching or productive scholarship is performed only because the members of the faculty cannot live upon their salaries. The implication is that nearly all outside work, except that which has scholarly and professional value or renders a public service, would be refused if salaries were sufficient to permit it. Certainly no general policy of limiting outside work is now feasible, unless the economic grade of the faculty is to be further depreciated. For the sum of salary and supplementary earnings together falls at present below the income necessary to support a fair professional level of living.

In this connection it must also be kept in mind that some of the outside work performed by members of the faculty is of high value to the public welfare. Many professors in this University render service to the United States Government and to the states and cities as well. These services are often performed for a quite small remuneration, or none. There are also fields in which outside contacts and activities are essential to creative scholarship and broaden the teacher's knowledge of his subject. Such activities generally deserve encouragement rather than repression.

Furthermore creative activity in his field is one of the qualities on which the teacher is evaluated by his students. If they know that he is called upon by important outside interests to do work of special value they follow him with an enthusiasm which is lacking toward the teacher whose activity appears to be limited to the classroom.

Nevertheless, the greater part of the outside work now forced upon the faculty has little or no value to the men doing it, other than the money it earns. It probably involves for the University a loss in respect to productive scholarship much greater than the addition it makes to the support of the faculty, and consequently in effect, to the University budget. It is a reasonable wage, not a limitation on outside earnings, that is needed.

VI.

INCOME OF THE FACULTY FROM PRIVATE PROPERTY

THERE is a widely held belief, outside the University, that many members of the faculty are possessed of sufficient private property to add considerable incomes to the salaries paid by the University. It has been shown in previous chapters that the members of the faculty in all grades, with few exceptions, spend more than their salaries in order to live. This fact may seem at first to support the belief that the Yale faculty is largely recruited from the propertied class. It is important to know whether this is true.

If the property income received by many members of the faculty were considerable, the attractions of university life might be sufficient to staff the University largely with teachers to whom the size of their salaries would be unimportant. A quite different University policy is necessary if they are found to be men for whom the salary is the principal support. The facts afforded by the replies to the questionnaire regarding income from private property, including wife's property, and gifts from parents, are as follows.

The median for all such income in the case of those replying is \$280 for instructors, \$500 for assistant professors, \$520 for associate professors, and \$1,150 for full professors.

TABLE IX
INCOME FROM PROPERTY, GIFTS AND
MISCELLANEOUS SOURCES

	Number Reporting		Median Amount from all Sources
	No such Income	Having such Income	
Instructors	43	51	\$ 280
Assistant Professors	28	50	500
Associate Professors	8	24	520
Full Professors	14	54	1,150

INCOME FROM PROPERTY

	Number	Minimum	Maximum	Median
Instructors	32	\$ 20	\$ 5,500	\$ 350
Assistant Professors	42	3	7,000	287
Associate Professors	21	80	5,000	900
Full Professors	48	70	35,000 (over)	1,700

INCOME FROM GIFTS

	Number	Minimum	Maximum	Median
Instructors	27	\$ 30	\$ 1,500	\$ 200
Assistant Professors	11	50	6,000	800
Associate Professors	6	50	1,000	325
Full Professors	9	40	1,150	150

OTHER "UNEARNED" INCOME

	Number	Minimum	Maximum	Median
Instructors	8	\$ 50	\$ 2,300	\$ 300
Assistant Professors	12	40	3,510	550
Associate Professors	2	120	300	..
Full Professors	6	65	2,000	575

The number and percentage of the faculty receiving such income in given amounts are as follows:

TABLE X
PROPERTY INCOME

	<i>Number</i>	<i>Per Cent</i>
Members of the faculty with	no income from property	34
	from \$1 to \$499	27
	from \$500 to \$999	10
	from \$1000 to \$1999	12
	from \$2000 to \$3999	9
	from \$4000 to \$7999	6
	from \$8000 upward	2
	<hr/> 272	<hr/> 100

These figures show that 34 per cent of the members of the faculty here reporting have no income from private property at all, while another 37 per cent have less than \$1,000 a year, and only 8 per cent have \$4,000 or more a year. The computations are based on 272 cases representing 63 per cent of the entire faculty. To the extent that similar conditions exist in other universities, it would seem that in this country the class with comfortable private means, or more, do not generally rate the attractions of academic life so highly that they care to serve a university on terms at which their salaries would be only a third to a half of a moderately well-to-do scale of living.* Some of the replies show considerable private income, but they comprise only a small proportion of the total number.

The most important conclusion to be drawn from this study is that for more than 90 per cent of the members of the Yale faculty who replied to the questionnaire, income from private property is a small factor; they have to depend upon their salaries or other immediate earnings to support themselves and their families.

* Cf. Appendix C, with reference to conditions at the University of California and other universities.

VII.

INCOME FROM ALL SOURCES

THE extent to which supplementary earnings and private property, that is, all income other than salary, are available for the support of the faculty may first be considered. For all members of the faculty replying to the questionnaire the facts are as follows:

TABLE XI
ALL INCOME OTHER THAN SALARY

		<i>Number</i>	<i>Per Cent</i>
Members of the faculty with	{ no income other than salary	25	9
	{ from \$1 to \$499	52	19
	{ from \$500 to \$999	49	18
	{ from \$1000 to \$1999	66	24
	{ from \$2000 to \$2999	26	9
	{ from \$3000 to \$3999	11	4
	{ from \$4000 to \$7999	32	12
	{ from \$8000 upward	11	5
		<hr/> 272	<hr/> 100

The conclusion to be drawn from these data is that 46 per cent of the members of the faculty replying are able to supplement their salaries by income from all other sources by less than \$1,000; and 70 per cent by less than \$2,000. Only 17 per cent receive \$4,000 or more a year in addition to their salaries. The matter of salary, then, since it comprises the major part of total income, is of vital importance in determining the faculty standard of living. If the salaries were larger the pressure for outside work would be less and the supplementary earnings, as pointed out in previous chapters, would be considerably smaller. There is, then, in the case of a large majority of the faculty replying, no evidence of sufficient supplementary income from any source to relieve the University of the necessity to pay salaries on a professional scale, if men of a fairly

TABLE XII

MEDIAN INCOME FROM ALL SOURCES OF FULL-TIME FACULTY MEMBERS

RANK	SALARY		SUPPLEMENTARY EARNINGS		INCOME FROM PROPERTY		TOTAL INCOME	
	Number Receiving	Median Salary	Number Having Such Earnings	Median Amount	Number Having Such Income	Median Amount	Number Receiving	Median Amount All Sources
Instructors	94	\$2,200	53	\$300	51	\$ 280	94	\$2,850
Assistant Professors	78	3,000	55	375	50	500	78	4,425
Associate Professors	32	4,500	25	375	24	520	32	6,300
Full Professors	68	7,000	53	500	54	1,150	68	9,300

high professional level are wanted as teachers and productive scholars.

Summary of All Sources of Income.

THE accompanying table shows the median income from each of the various sources (salary, supplementary earnings, and unearned income) for those having such source of income. It should be noted that the median of the total income of any rank does not equal the sum of the medians of the three main sources of income. The reason for this is that not all faculty members have supplementary earnings or income from property. The median amount of supplementary earnings is for those who have such earnings; the median amount of income from property applies solely to those who have such income. Salary and total income are the only items applicable to all persons replying.

In all ranks salary constitutes the major portion of the total income. Income from property is next in importance, with a slight exception in the case of the instructors. The proportion of dependence on property income becomes greater with increase of rank. Supplementary earnings, which represent the smallest source, also increase with rank but at a lower rate.

Amount of Total Income.

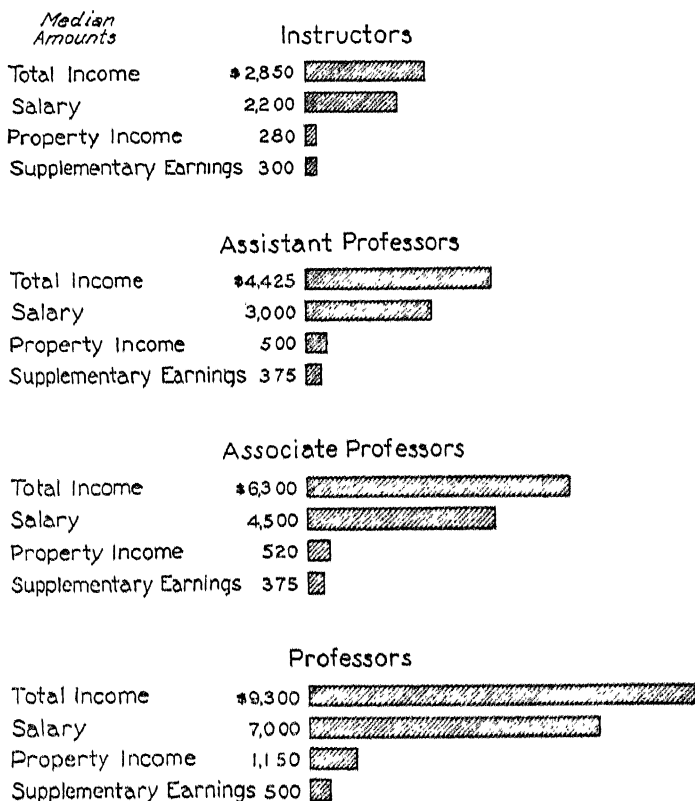
THE total income from salary and all other sources of the 272 full-time faculty members replying to the questionnaire will be here considered from the point of view of range and median amount according to rank and marital status.

The total income of the instructors replying ranges from a minimum of \$1,500 to a maximum of \$9,000, with a median of \$2,850. The total income of the married instructors is greater than that of the single. Both the frequency of marital status and the number of children increase as income rises. This seems to indicate that low income is one of the factors limiting marriage and the number of children.

The assistant professors show a range from \$2,500 to \$12,500, with a median of \$4,425. There is a trend, though not

Figure 3

PROPORTION OF INCOME FROM ALL SOURCES



unbroken, toward an increasing number of children with greater income.

The associate professors' total income varies from a minimum of \$3,900 to a maximum of \$12,000; the median is \$6,300. While the married here have slightly more income than the single, there is no correlation between the amount of total income and the number of children; the associate professors with three or more children, for example, have somewhat less (\$6,000) than those who are childless (\$6,200), or those with one child (\$6,400).

The full professors who replied have a range of total income from \$5,000 to over \$35,000. The median is \$9,300. The income from private property is greatest in this group and shows considerable variation; there is no correlation between total income and number of children.

In short, the typical instructor has from all sources something less than \$3,000 with which to meet his expenses; the assistant professor has slightly less than \$4,500; the associate professor, \$6,300; and the full professor, \$9,300.

TABLE XIII
TOTAL INCOME OF FULL-TIME FACULTY

RANK	Number Replying	Minimum	Maximum	Median
<i>Instructors, Total</i>	94	\$1,500	\$ 9,000	\$ 2,850
Single	45	1,500	6,000	2,500
Married { Childless	22	1,680	5,000	2,087
{ One Child	17	2,100	9,000	3,000
{ Two Children	10	2,000	5,300	3,125
<i>Asst. Professors, Total</i>	78	\$2,500	\$12,500	\$ 4,425
Single	19	2,600	9,000	3,380
Married { Childless	14	2,500	10,000	4,750
{ One Child	14	3,187	12,500	4,000
{ Two Children	20	3,500	11,200	4,950
{ Three or more	11	4,100	9,500	5,500
<i>Assoc. Professors, Total</i>	32	\$3,900	\$12,000	\$ 6,300
Single	6	4,000	8,825	5,895
Married { Childless	5	4,650	9,000	6,200
{ One Child	8	5,000	12,000	6,400
{ Two Children	7	3,900	10,500	5,900
{ Three or more	6	4,580	6,400	6,000
<i>Full Professors, Total</i>	68	\$5,000	\$35,000(over)	\$ 9,300
Single	2	6,900	8,600	..
Married { Childless	13	5,400	35,000(over)	10,300
{ One Child	9	5,000	10,335	9,000
{ Two Children	20	5,500	35,000	10,750
{ Three or more	24	6,200	35,000(over)	9,000

Since it is the total income which in the last analysis determines the mode of living, a special tabulation has been made of the median total income of the married faculty with children, for the purpose of indicating the sum available for the support of the family.

<i>Married faculty with children</i>	<i>Median income from all sources</i>
27 instructors	\$3,050
45 assistant professors	5,050
21 associate professors	6,300
53 full professors	9,200

The average number of children per married member of the faculty with children, it may be recalled, is two.

VIII.

EXPENDITURES OF THE FACULTY

IT is not the purpose of this report to analyze in detail all the personal and domestic expenditures of the members of the faculty. Its purpose is, rather, to investigate the general standard of living of the faculty and to inquire whether or not their incomes are adequate to maintain that standard. Only those items of expenditure which throw light on this question will be discussed.

Education of Children.

THE problem of the education of children is so closely related to the matter of age that information on this point may first be given.

	<i>Median Age Years</i>
Children of instructors	1
Children of assistant professors	5
Children of associate professors	8
Children of full professors	16

Replies to the questionnaire indicate that in general expenditures for the education of children begin with the age of five. Unfortunately it is not possible to present statistics on the amount spent for the education of the faculty child, for the reason that the replies did not specify in the case of several children in a family how much is spent on each. All that can be said is that for those faculty members of a given rank who are making expenditures for the education of their children—whether the expenditure is for one, two, three, or four children—the median annual amount is for assistant professors \$200, for associate professors \$225, and for full professors \$1,200. It may be recalled that the average number of children per assistant professor with children is about two, for associate professor the same, and for full professor between two and three.

Only three of the twenty-seven instructors with children, including one who is paying on an educational endowment, report

any expenditures for the education of children. This situation is due primarily to the fact that the children of instructors are for the most part not yet of school age; only seven of them are five years of age or over. The range is from a few months to seven years, with a median age of one year.

The ages of the children of the forty-five assistant professors replying range from less than one year to fourteen years; the median age is five. One-half of the children, then, are under school age, and the other half are between five and fourteen. Twenty of the assistant professors are making some expenditure for the education of their children. The children in all these instances are five years of age or over. The other assistant professors report no expenditure for education. Their children are either too young to attend school or, if of school age, they are sent to the public schools. This is the situation in fourteen of the twenty-five cases.

There are twenty-one associate professors with children, whose ages range from under one to over twenty-one. The median age is eight years. Twelve of these faculty members report expenditures for the education of their children. In seven of the nine cases where no such expenditures are reported, there is at least one child five years of age or over. It is to be assumed that these children are attending the public schools.

Fifty-three full professors with children replied to the questionnaire. The median age of their children is sixteen years. Thirty-six of these professors are making expenditures for education. In the seventeen cases where no expenditures for the education of children are reported, there are five full professors who have children under twelve, while all the others have children over twenty-one, most of whom are presumably past school and college age.

Certain conclusions may be drawn from this study. First, many of the faculty, especially those of the lower professorial ranks, send their children of school age to the public schools, presumably because they cannot afford to send them to private schools. This is expressly stated in some of the replies. Second, the amount spent on the education of children by the assistant and associate professors indicates that the children are either

receiving special lessons, as in music, or that they are attending some local day school. Boarding school expenses would be much higher. Finally, expenditures for the education of children are general only in the case of full professors. The amounts expended indicate that they send their younger children to private day schools, their older children to boarding or preparatory schools and later to college or professional school. Further analysis discloses that in those cases where \$1,000 or more is spent annually on education, the faculty member usually has supplementary income. If this is lacking, either no expenditure for the education of the children is possible or the education of the children in preparatory school and college constitutes a great drain on the family resources and involves a curtailment of other necessary expenditures. In some instances the situation is relieved by the child receiving a scholarship or by having the tuition at boarding school partly or entirely remitted. On entering college, however, at least at Yale, the children of faculty members are required to pay tuition at full rate. In some instances money is saved by the student rooming at home, with a consequent curtailment of association with his classmates.

Domestic Service.

THE question of domestic service is here considered with reference to the married faculty only. Of the married instructors reporting, 39 per cent have no domestic service of any kind, the wife doing all the work and taking care of the children where there are children. Fifteen per cent of the married assistant professors have no service; 11 per cent of the associate professors, and 3 per cent of the full professors.

With the exception of the full professors, most of the married faculty who secure domestic service at all have only occasional service. This is true of 51 per cent of the married instructors, 47 per cent of the assistant professors, and 58 per cent of the associate professors. Even among the married full professors, 21 per cent rely on occasional service only.

The median annual expenditure for such occasional service is \$100 for the instructor, \$175 for the assistant professor, \$150 for the associate professor, and \$250 for the full professor.

Thus, the employment of regular servants is rare in the lower ranks. Only 10 per cent of the married instructors replying have a regularly employed servant; in no case is there a report of two or more servants regularly employed. The median annual cost of regular service is \$780. For assistant professors, 31 per cent have one regular servant and 7 per cent two servants; the median annual cost is \$820. Of the associate professors, 27 per cent are employing one regular servant and 4 per cent two regular servants; the median annual cost is \$1,105. It is only with the full professors that full-time domestic service is the rule. Fifty-six per cent have one regular servant, 12 per cent have two, and 8 per cent have three or more regular servants; the median annual expenditure for service is \$1,000, which is not much more than the wages now received in New Haven by a first class domestic cook.

In approximately 70 per cent of the cases, those with regular service have occasional service also. This has been included in the statements of cost mentioned above.

For all the married faculty reporting service of any kind, whether occasional only or regularly employed (with or without additional occasional service), the median annual expenditure, with the exception of the full professors, is small. This is because occasional service is the most common form. The married instructor having service of any kind expends annually a median sum of \$135; the assistant professor \$269; the associate professor \$292; and the full professor, who is the only one really in the servant-keeping class, expends \$930.

As was pointed out earlier in this report, in Europe the sharpest line of demarcation between classes is that above which at least one servant is regularly employed, and below which the wife does the cooking and other household work. Taking the fact of one regularly employed servant as an indication of the servant-keeping class, the replies indicate that nearly a quarter of the full professors, two-thirds of the assistant and associate professors, and nine-tenths of the instructors fail to attain that status.

Married Faculty Having No Regularly Employed Servants

	<i>Percentage</i>
Instructors	90
Assistant professors	62
Associate professors	69
Full professors	24

In simple words these are the percentages of the faculty households in which the wife does the cooking and, except for some occasional help, all the housework.

TABLE XIV

NUMBER OF MARRIED FACULTY HAVING
DOMESTIC SERVICE, AND THE
MEDIAN COST

SERVICE OF ANY KIND

	<i>Number Reply- ing</i>	<i>Number Having Service</i>	<i>Per Cent</i>	<i>Median Annual Cost</i>
Instructors	49	30	61	\$135
Assistant Professors	59	50	85	269
Associate Professors	26	23	89	292
Full Professors	66	64	97	930

OCCASIONAL SERVICE ONLY

	<i>Number</i>	<i>Per Cent</i>	<i>Median Annual Cost</i>
Instructors	25	51	\$100
Assistant Professors	28	47	175
Associate Professors	15	58	150
Full Professors	14	21	250

*REGULAR SERVICE**

	<i>One Regular Servant</i>		<i>Two Regular Servants</i>		<i>Three or More Regular Servants</i>		<i>Median Annual Cost of all Regular Service</i>
	<i>Num- ber</i>	<i>Per Cent</i>	<i>Num- ber</i>	<i>Per Cent</i>	<i>Num- ber</i>	<i>Per Cent</i>	
Instructors	5	10	..	..	..	..	\$ 780
Assistant Professors	18	31	4	7	..	..	820
Associate Professors	7	27	1	4	..	..	1,105
Full Professors	37	56	8	12	5	8	1,000

* Approximately 70 per cent of those with regular service have occasional service also.

Automobiles.

RETURNS from the questionnaire indicate that the percentage of the faculty owning automobiles increases with rank. It is also greater among the married than among the single, and it tends on the whole to increase with the size of the family. While the presence of children thus increases the need for a car, it will be noted that it forces the group of married men who have children to own cheaper cars.

In what price class and of what year of manufacture are the cars which members of the faculty drive? Of the instructors replying, 35 per cent own cars, of which one-third are second-hand. The cars range as to year of manufacture from 1917 to 1927, with 1925 the most common. The median price paid is \$650. Nineteen instructors drive cars that cost less than \$1,000; thirteen have cars in the general price class of \$1,000 to \$1,999. Only one instructor has a more expensive car.

Sixty per cent of the assistant professors reporting own cars, of which about one-fifth were purchased second-hand. Their automobiles are somewhat newer models than those of the instructors, ranging from 1919 to 1928 as to year of manufacture, with 1926 as the most common year. The median price paid is \$875. In twenty-one cases the car is in the \$500 to \$999 class; in twenty-three cases the \$1,000 to \$1,999 class. In only three cases did the car cost \$2,000 or more.

Sixty-six per cent of the associate professors replying have cars, of which more than two-fifths are in the used class. They vary in age from one to ten years, with the four-year olds being most common. The median price paid is \$700. Six of these cars are in the \$500 to \$999 price class; eleven in the \$1,000 to \$1,999 class; and four in the \$2,000 and over class.

Exactly three-quarters of the full professors replying own automobiles. One-quarter of them were not new when purchased. The year of manufacture ranges from 1922 to 1927, with 1926 the most frequent. The median price paid is \$1,200. Of the full professors' cars, eight are in the lowest price class of less than \$1,000, twenty-three in the second price class, and twenty in the class of \$2,000 and over.

The average annual mileage is in all cases considerably lower

TABLE XV

FACULTY AUTOMOBILES

RANK	Number Replying	Per Cent Owning Car	Per Cent of Cars That Are Second- hand	Range and Most Common Year of Manufacture		Distribution of Class of Car*				Average Annual Mileage
				Median Price Paid	Range	Most Common Year	A \$500 to \$999	B \$1,000 to \$1,999	C \$2,000 and over	
<i>Instructors, Total</i>										
Single	. . . . 94	35	33	\$ 650	1917-27	1925	19	13	1	6,460
Married, Childless	. . . . 45	22	30	1,115	1922-27	1923	3	7	0	6,000
Married, with Children	. . . . 22	33	29	725	1917-27	1926	5	1	1	7,000
Married, with Children	. . . . 27	59	37	596	1922-25	1925	11	5	0	6,500
<i>Asst. Professors, Total</i>										
Single	. . . . 78	60	21	\$ 875	1919-28	1926	21	23	3	6,530
Married, Childless	. . . . 19	52	20	850	1922-27	1923	3	6	1	4,900
Married, with Children	. . . . 14	64	22	1,000	1924-28	1927	3	5	1	7,500
Married, with Children	. . . . 45	62	21	890	1919-27	1926	15	12	1	6,400
<i>Assoc. Professors, Total</i>										
Single	. . . . 32	66	43	\$ 700	1918-27	1924	6	11	4	5,775
Married, Childless	. . . . 6	33	50	562	1921-25	....	1	1	0	data lacking
Married, with Children	. . . . 5	60	33	1,250	1922-27	1927	0	2	1	5,700
Married, with Children	. . . . 21	76	44	700	1918-27	1924	5	8	3	6,000
<i>Full Professors, Total</i>										
Single	. . . . 68	75	25	\$1,200	1922-27	1926	8	23	20	5,970
Married, Childless	. . . . 2	50	100	1,600	.....	1923	0	1	0	data lacking
Married, with Children	. . . . 13	61	25	1,800	1922-25	1924	0	4	4	6,900
Married, with Children	. . . . 53	79	24	1,075	1916-27	1926	8	18	16	5,800

* *Classes of Cars:* (Cars which fall into two classes are itemized according to the price paid).

(A) General price class, \$500-\$999: Ford, Chevrolet, Overland, Essex, Pontiac.

(B) General price class, \$1,000-\$1,999: Dodge, Oakland, Hudson, Chandler, Studebaker, Buick, Jordan, Nash, Reo, Chrysler.

(C) General price class, \$2,000 and over: Chrysler, Willys-Knight, Wills-St. Claire, Pierce-Arrow, Marmon, LaSalle, Cadillac, Franklin, Packard, Lincoln.

than 10,000. For instructors it is 6,460 miles, for assistant professors 6,530, for associate professors 5,775, and for full professors 5,970. This would indicate that the car is employed largely for town use and that extensive touring is rare. In many instances it is a necessity because of the distance from the University at which the faculty members live. Many of the replies state that in the evenings, on Sundays, and during their short vacations the car serves as a means of recreation, in some instances practically the sole means.

Taking the total cost of maintenance and operation for the lower and medium priced cars as nine cents per mile (a figure furnished the Committee by its colleagues in the Mason Mechanical Laboratory), it will be seen that with an average annual mileage varying approximately from 6,000 to 6,500 the annual expenditure for this item is between \$540 and \$585.

All told, it would seem that the faculty regard the possession of a car as an essential in their standard of living.

Associations and Clubs, Travel and Vacation

Professional Associations.

ABOUT 80 per cent of the instructors replying to the questionnaire (seventy-six out of ninety-four) belong to one or more professional associations, the average number being 2.36 and the average cost \$14.66.

Approximately 86 per cent of the assistant professors replying have professional association membership, belonging to three associations on an average and expending an average annual amount of \$23.54.

Nearly 95 per cent of the associate professors replying belong to professional associations averaging four and a half in number and \$26.25 in cost.

A little over 90 per cent of the full professors replying have professional association membership, belonging on an average to five and a half and spending for this purpose an average of \$50.49.

In all four ranks, the married faculty with children belong to a smaller number of professional associations and, with the

exception of instructors and the single assistant professors, they spend the smallest amount for such membership. On the other hand, as will be seen, they spend the largest amount on an average for social club membership.

Social Clubs.

A LITTLE over 60 per cent of the instructors replying belong to social clubs, about two on an average, and costing an average annual sum of \$33.47.

Three-quarters of the assistant professors replying have social club membership, averaging slightly more than two in number and \$45.17 in cost.

Of the associate professors reporting, nearly 85 per cent belong to social clubs, averaging exactly three in number and in cost \$64.31.

Almost 90 per cent of the full professors replying belong to social clubs, averaging not quite three in number and costing an average annual amount of \$149.15.

In the case of each rank, those married with children exceed the average cost for social club membership. In thus fulfilling their social duty to their families, they are forced to limit themselves in professional associations.

Travel.

THE financial pressure upon faculty members having children is also indicated in the amount spent by them in travel and the number of weeks' vacation they take in contrast to those married without children and the single.

Sixty-two per cent of the instructors report that they travel; the median annual amount spent by them for this purpose is \$200. The same percentage of the assistant professors travel, for which they spend a median amount of \$250. With the associate professors, the percentage who travel is higher, being seventy-two, and the median amount \$300. Of the full professors, 78 per cent travel and the median amount expended is \$350.

In the case of each rank, with one slight exception, the median amount spent for travel is lowest for the married mem-

bers with children. It is invariably highest for the single. The only exception to the last statement is furnished by the unmarried full professors, but as there are only two such cases reporting, they may be disregarded.

Vacation.

THE term vacation is apparently taken by the faculty who replied to the questionnaire to mean cessation from all work. It is so used here. There are about eighteen weeks during the calendar year when the University is not in session; many of the faculty use part or all of this time for research, writing, and other professional activities, or for gainful employment to supplement their salaries. The figures cited below refer to the number of weeks (or the amount of time figured in weeks) during the year when the faculty member is not so engaged—vacation in the sense of recreation. Some of the faculty members report that during the summer they work part of the day and take the rest of the time off; a few others take their vacation week-ends. The time when these members are not at work has been computed in weeks and included in the statement of the number of weeks' vacation here given. Eight replies were eliminated for the reason that they gave no information on the subject of vacation.

The average number of weeks' vacation taken by the faculty members reporting any vacation shows no special correlation with rank. The instructors report an average of 5.4 weeks' vacation during the year; the assistant professors, 5.1; the associate professors, 5.4; and the full professors, 6.0. It is to be noted that at most the faculty members avail themselves of but a third of the nominal University vacation period.*

It is probably significant that in the case of each rank the married members with children report the smallest number of weeks' vacation. There is just one exception to this statement: the two instances of unmarried full professors show a vacation period that is less than the average of those who are married and have children. More striking is the fact that twenty-six of

* See Appendix C for conditions at the University of California.

TABLE XVI

TRAVEL, CLUB AND ASSOCIATION MEMBERSHIP, AND VACATION

RANK	TRAVEL				PROFESSIONAL ASSOCIATIONS			SOCIAL CLUBS			VACATION	
	Number Replying	Number Who Travel	Median Cost of Travel	Number Belonging to Ass'ns	Average Number of Ass'ns	Average Cost	Number Belonging to Clubs	Average Number of Clubs	Average Cost	Number Taking	Average Number of Weeks	
<i>Instructors, Total</i> . . . 94 58 \$200 76 2.36 \$ 14.66 59 2.1 \$ 33.47 79 5.4												
Single	45	31	300	37	2.5	14.03	29	2.2	26.57	39	6.7
Married, Childless	22	12	175	18	2.5	14.00	13	2.0	22.08	21	4.1
Married, with Children	27	15	100	21	2.0	16.33	17	2.0	53.94	19	4.1
<i>Asst. Professors, Total</i> . . . 78 48 \$250 67 3.07 \$ 23.54 59 2.2 \$ 45.17 68 5.1												
Single	19	12	400	15	3.4	17.23	15	2.5	41.73	18	5.7
Married, Childless	14	12	200	11	3.8	31.82	7	2.3	44.00	13	6.0
Married, with Children	45	24	225	41	2.8	23.62	37	2.1	46.24	37	4.5
<i>Assoc. Professors, Total</i> . . . 32 23 \$300 30 4.5 \$ 26.25 27 3.0 \$ 64.31 27 5.4												
Single	6	5	650	6	5.5	28.08	6	3.2	57.50	6	9.0
Married, Childless	5	4	250	5	5.0	40.40	3	2.7	65.00	4	6.0
Married, with Children	21	14	225	19	4.0	25.11	18	3.0	66.47	17	4.1
<i>Full Professors, Total</i> . . . 68 53 \$350 62 5.5 \$ 50.49 61 2.8 \$149.15 57 6.0												
Single	2	2	350	2	6.5	42.50	2	4.5	152.50	2	3.0
Married, Childless	13	12	800	12	6.2	91.83	11	2.1	110.45	13	7.7
Married, with Children	53	39	300	48	5.3	40.49	48	3.0	157.88	42	5.6

the thirty-three members of the faculty who reported that they took no vacation at all are married men with children.

The whole subject of professional association membership, travel, and vacation suggests that the married faculty members with children are able to enjoy these opportunities to a lesser extent than their single or married but childless colleagues.

IX.

INSURANCE, CASH SAVINGS, AND INVESTMENTS; ANNUAL SURPLUS OR DEFICIT

ANY group of people whose income as a rule merely balances their living expenses is thereby demonstrated to be in an unsound financial condition. Sickness, childbirth, premature death of the man, and other events involving expenses beyond those of day-by-day living must be classed as such common hazards that provision should be made for them as virtual certainties. In providing against the hazards of the future, most of the faculty members have chosen the method of insurance. Seventy-two of the ninety-four instructors replying to the questionnaire, seventy-one of the seventy-eight assistant professors, twenty-six of the thirty-two associate professors, and fifty-five of the sixty-eight full professors carry either life, accident, or annuity insurance, while only forty-one of the instructors, forty-three of the assistant professors, twenty-five of the associate professors, and forty of the full professors have cash savings or investments or both.

About 85 per cent of the instructors report one or more of these items: insurance, cash savings, and investments. For assistant professors the percentage is almost ninety-five, for associate professors ninety-seven, and for full professors eighty-eight.

Insurance.

THE tabulations seem to indicate a tendency to insure in proportion to income. The median annual premium for instructors (median income \$2,850) is \$145; for assistant professors (median income \$4,425), it is \$320; for associate professors (median income \$6,300), it is \$291; and for full professors (median income \$9,300), it is \$392.

A comparison of insurance premiums to total income indicates that on the whole about 5 per cent of the income goes to buy insurance. The percentage is higher for assistant professors, slightly lower for associate professors, and nearer 4 per cent for full professors.

The median annual premium for members of all ranks indicates that a relatively small amount of insurance is carried. Even a policy of \$25,000 would yield an income of but \$1,250 a year, which is inadequate for the support of one individual, let alone a family of several. Yet few of the faculty are carrying that amount or more. The premium on a regular policy paying \$25,000 would be for a person, say, thirty-three years old—the median age of the faculty replying—about \$500. With the Teachers Insurance Association the rate is lower, with commercial companies it is higher. There are no cases among the seventy-two instructors reporting where a premium as high as \$500 is paid. Of the seventy-one assistant professors with insurance, only twelve are paying premiums of \$500 or more; among the twenty-six associate professors there are but six; and among the fifty-five full professors nineteen. It is to be concluded, then, that as a class the members of the faculty carry an inadequate amount of insurance.

Cash Savings and Investments.

THE information regarding cash savings and investments also indicates that the income of the faculty permits but little of this type of provision for the future, especially in the case of the three lower ranks. For those instructors (forty-one out of ninety-four) reporting cash savings or investments or both, the median annual amount is \$400. For assistant professors (forty-three out of the seventy-eight) the median annual amount is \$500. For associate professors (twenty-five out of thirty-two) the amount is \$500 also. For full professors (forty out of sixty-eight) the median amount is \$2,000.

In view of the facts that more than half of the instructors and nearly half of the assistant professors report no cash savings or investments and that those who are able to save can lay aside but a small amount, it may be predicted with an approach to certainty that, if this condition continues, these men will have but little income-yielding property by the time they are full professors. They will probably have accumulated considerably less than the amount possessed by the present members of that rank. Many full professors own their homes. The present

TABLE XVII

INSURANCE, CASH SAVINGS, AND INVESTMENTS

RANK	TOTAL INSURANCE, LIFE, ACCIDENT, OR ANNUITY INVESTMENTS					SAVINGS OR INVESTMENTS							
	Number Replying	Median Age	Median Income	Median Annual		Number Having	Median Annual						
				Having	Amount		Having	Premium					
<i>Instructors, Total</i>													
Single	94	28.5	\$ 2,850	80	\$ 300	72	\$145.00	41	\$ 400
	45	28.5	2,500	35	430	30	135.00	25	400
Married	{	Childless	.	.	22	28.5	2,987	19	300	18	142.50	9	549
		One Child	.	.	17	30.5	3,000	16	217	15	208.00	4	350
		Two Children	.	.	10	29.5	3,125	10	223	9	135.00	3	200
<i>Asst. Professors, Total</i>													
Single	78	34.5	\$ 4,425	74	\$ 583	71	\$320.00	43	\$ 500
	19	32.5	3,380	17	613	14	227.50	13	700
Married	{	Childless	.	.	14	32.5	4,750	13	700	13	250.00	8	450
		One Child	.	.	14	33	4,000	13	380	13	285.00	4	325
		Two Children	.	.	20	34.5	4,950	20	552	20	363.00	10	410
		Three or more Children	.	.	11	36.5	5,500	11	737	11	450.00	8	500
<i>Assoc. Professors, Total</i>													
Single	32	43	\$ 6,300	31	\$ 892	26	\$291.00	25	\$ 500
	6	44	5,895	6	837	4	471.50	5	500
Married	{	Childless	.	.	5	44	6,200	5	1,100	3	250.00	5	1,000
		One Child	.	.	8	40	6,400	8	954	7	375.00	7	500
		Two Children	.	.	7	44	5,900	6	400	6	345.00	4	375
		Three or more Children	.	.	6	43	6,000	6	630	6	268.50	4	550
<i>Full Professors, Total</i>													
Single	68	52	\$ 9,300	60	\$1,090	55	\$302.00	40	\$2,000
	2	44; 61	..	2	194	2	44.00	1	300
Married	{	Childless	.	.	13	55	10,300	12	1,580	11	500.00	9	2,000
		One Child	.	.	9	50.5	9,000	7	700	5	385.00	3	5,000
		Two Children	.	.	20	52	10,750	18	1,320	18	390.00	12	1,600
		Three or more Children	.	.	24	48	9,000	21	1,000	19	392.00	15	1,000

showing of the younger members renders it improbable that many of them will be as well off in this respect. They will be forced in larger measure to rent their homes and they will not have an income from private property sufficient to pay rent for as good residences as those now occupied by the older members of the faculty. Moreover, the standard of living has risen, and this places a greater financial burden on members of all ranks.

Taking the median annual amount devoted to all insurance, cash savings, and investments by the members of the faculty reporting such expenditures, the eighty instructors set aside \$300; the seventy-four assistant professors \$583; the thirty-one associate professors \$892; and the sixty full professors \$1,090. On the whole, approximately one-tenth of the income of these cases is devoted to such purposes.

Annual Surplus or Deficit.

THE term surplus, as used here, comprises cash savings and investments. The faculty members replying to the questionnaire deemed expenditure for insurance a necessary item of expense—a view that is quite justifiable—and for that reason it is not included under “surplus.”

Fifty-five per cent of the faculty replying show an annual surplus; the rest either break even or have a deficit.

	<i>Number</i>	<i>Per Cent</i>
Members of the faculty having surplus . . .	140	55
Members of the faculty breaking even . . .	100	37
Members of the faculty having deficit . . .	23	8
	<hr/> 272	<hr/> 100

The cases of faculty members reporting who live up to the limit of their income or else run into debt or draw on their capital are presented in the following table.

Members of the Faculty Having No Surplus

	<i>Per Cent</i>
Instructors	56
Assistant professors	45
Associate professors	22
Full professors	41

A situation in which 45 per cent of the faculty replying fail to show any accumulation other than insurance during the year is one that warrants the closest attention. It gives evidence that not only are salaries inadequate but that all additional income is insufficient to provide for their standard of living. This conclusion is sound if it is granted that a certain percentage of income should, in every case, be reserved for savings and investments and that the faculty members as a class are not improvident.

Eight per cent of the faculty replying not only fail to secure any surplus but are forced to draw on their capital (e.g., by selling a bond), or go into debt. The number of cases and the range of deficit are given in the table below.

TABLE XVIII
RANGE OF DEFICIT

<i>Instructors</i>		<i>Assistant Professors</i>	
\$ 50	2 cases	Amount not stated	1 case
\$100	1	\$ 100	1
\$250	2	\$ 180	1
\$300	1	\$ 250	1
\$500	2	\$ 400	2
\$600	1	\$ 500	1
		\$ 800	1
		\$1,200	1
	9 cases		
			9 cases
<i>Associate Professors</i>		<i>Full Professors</i>	
\$ 400	1 case	Amount not stated	1 case
\$1,000	1	\$1,900	1
		\$2,000	1
	2 cases		
			3 cases

The general conclusion of this analysis is that the members of the Yale faculty, taken by and large, have an income from all sources which permits 55 per cent of them to live according to the modest standard now prevailing and to set aside a small amount to meet the demands and uncertainties of the future, but which forces 45 per cent of them, in order to attain this standard, to expend all their income and in some cases to mortgage the future.

X.

THE RESIDENCES AND NEIGHBORHOODS WHERE THE FACULTY LIVE

THE committee has gone carefully into the whole subject of the housing situation of faculty members and has not only used the returns from the questionnaire but has carried on two additional lines of investigation: one as to the locations of their residences, the other as to the assessed values of the residences of faculty members in comparison with those of their non-faculty neighbors. The term residence as used in this report means house and lot.

These investigations are justified by the fact that the character and cost of the home afford for all classes in a community the best single indication of the standard of living. Furthermore, rent is an element in the domestic budget for which the figures are easily obtained. It is a factor which is always present, for even if the home is owned it has a rental value which comes out of potential income. The percentage of rent to total cost of living is frequently used in economic and sociological studies as an index of the proper adjustment of the scale of living. The common relation, usually referred to as the application of Engel's law to American conditions, is that the rent normally does not exceed one-fifth (20 per cent) or, in the case of larger incomes, one-seventh or less of the total cost of the mode of living.

Where do the faculty live, and in what kind of houses? How do their residences compare with those of their neighbors? To what extent are their homes owned or rented? What per cent of their income is expended for shelter? These are some of the questions to which an answer will be found in the data set forth in this chapter.

Location of Residences.

IN one of the investigations additional to the questionnaire, a map was prepared showing the location and distribution of the places of residence of all members of the University teach-

ing staff. Starting from the college as a center, where a number of the faculty live as proctors in University buildings or in the district nearby, the faculty residences tend to be located toward the outskirts of the city. Two main districts are readily recognizable. One is the Whitney Avenue section extending out to Hamden, ranging within the city from near Prospect Street to Orange Street; the other is out Edgewood Avenue to Westville. These two avenues lead to the best residential sections of the city. An appreciable proportion of the faculty (some thirty-seven cases) live outside the city limits, particularly in Whitneyville and adjacent sections of Hamden. Several live in West Haven and in East Haven, two in Woodbridge, while one is found in each of the following places: Morris Cove, Woodmont, and Guilford. This distribution of the faculty appears to be due to a desire to live in good residential districts away from the business center, as well as to the necessity in many cases of selecting regions where cheaper rents may be secured. In a number of instances the possession of an automobile is due largely to the considerable distance from the University at which the faculty member lives; many of the replies to the questionnaire state that the car is on this account a necessity rather than a luxury. Furthermore, the annual mileage is not very large, indicating that the car is used in the city rather than for much touring.

The table below gives information as to the types of residential districts in which the faculty members live. According to the zoning ordinance of the City of New Haven, a residence "A" district is one devoted to single-family detached dwellings. Residence "AA" districts permit multiple dwellings with high restrictions. Residence "B" districts permit two-family detached dwellings and boarding houses. Residences listed below as in a business district are either near the central part of the city or else on avenues where certain types of business, chiefly retail stores, are permitted. They approach very closely to a "B" residential district. Residence "C" districts place no restrictions on the type of dwelling.

A number of the faculty (total twenty-nine, *viz.*, five full professors, three associate professors, eight assistant professors,

and thirteen instructors) live in the University buildings, and have not been included in the list. The places of residence of the other members of the faculty who live within the city of New Haven, when plotted on a city zoning map, show the quality of the neighborhoods to be as follows:

TABLE XIX
TYPES OF DISTRICTS WHERE THE
FACULTY LIVE

(Based on the definition of districts adopted by the zoning ordinance of the City of New Haven.)

<i>Type of District</i>	<i>Full Profs.</i>	<i>Assoc. Profs.</i>	<i>Asst. Profs.</i>	<i>Instructors</i>	<i>Total</i>
Residence A to AA	71	14	33	15	133
Residence B	27	16	28	28	99
Residence C	1	..	5	19	25
Business	5	3	21	28	57
Industrial . . . .	..	..	1	3	4
<i>Total</i>	<i>104</i>	<i>33</i>	<i>88</i>	<i>93</i>	<i>318</i>

Evidently the faculty tend to live in good neighborhoods, and in fact a large proportion are found in the best residential districts of the city.

Value of Residences.

WHILE the foregoing data show where the faculty live they do not tell what kind of houses they occupy nor how their residences compare with those of their non-faculty neighbors. In studying this phase of the matter, the Committee took the first 25 per cent of each academic rank in alphabetical order and then determined from the city directory who are the neighbors of these members of the faculty, taking several cases of the latter for each faculty member. From the office of the Board of Assessors were obtained the assessed valuations of all the residences. The cases were then considered by groups in homogeneous neighborhoods, and the average assessed value of the faculty residences was compared with that of their non-faculty neighbors. In the cases of two-family dwellings, the assessed

value was divided equally between the two tenants. Apartment houses and rooming houses were not included, because of the impossibility of apportioning the assessed valuation.

TABLE XX
ASSESSSED VALUATIONS OF FACULTY AND NON-
FACULTY RESIDENCES IN VARIOUS
NEIGHBORHOODS

(Based on the first 25 per cent of each rank of the faculty in alphabetical order as listed in the University catalogue and their nearest neighbors as determined from the city directory. Valuations of the residences, whether owned or rented, obtained from the Board of Assessors.)

<i>Region*</i>	<i>FACULTY</i>		<i>NON-FACULTY</i>	
	<i>Number</i>	<i>Average assessed value</i>	<i>Number</i>	<i>Average assessed value</i>
I	2	\$ 8,860	11	\$ 8,895
II	7	7,664	16	7,384
III (B)	7	6,429	24	6,545
IV (B)	3	7,490	9	6,718
V (A)	11	10,524	31	11,674
VI (B)	12	14,657	13	15,776
VII (A to AA)	29	14,348	44	15,958
VIII (A)	13	15,613	25	16,175
IX (A)	8	17,929	25	19,476
X (A)	9	21,728	20	25,584
XI (A)	11	22,370	16	38,530
XII (A)	5	37,017	6	45,358

These data like those of the preceding section indicate that the faculty are striving to live in the best residential districts, but that in order to do so they are compelled to occupy residences inferior on the whole to those of their neighbors. As the assessed valuations of the residences in the various districts rise, the discrepancy between the faculty and non-faculty assessed values increases. In the regions where the valuations run

* The characteristics and definition of these regions, with all the detailed matter of the study, are given in Appendix B. In the case of regions located within the city of New Haven, the type of residential district in which they fall, as defined by the zoning ordinance, is indicated above by letter.

under \$10,000, there is not much difference between the average assessed value of the faculty residences and that of their non-faculty neighbors; the former may even be higher than the latter. But in passing from B to A residential districts, and from average assessed valuations of \$10,000 to \$15,000, \$20,000 and over, the tendency of the faculty residences to fall below the average valuation of those of the non-faculty becomes pronounced. The study indicates that in general the faculty members are distinctly poorer than their neighbors. Since there is a definite relationship between expenditure for shelter and total income (about one to five in the case of incomes of moderate size, and decreasing to one to six or seven as incomes become greater), the fact that the neighbors of the members of the faculty live in residences of higher value argues that they possess larger incomes than do the faculty members. The data to be presented later upon the salaries and general income of persons engaged in other callings support this view.

The Neighbors of the Faculty.

Who are the neighbors of the faculty, and what are their occupations? In the neighborhoods where the average assessed valuations are under \$10,000, the largest group is composed of clerks and office workers and managers of small business concerns. There are very few professional people. Skilled mechanics and salesmen, with a few firemen and railroad employees, make up the balance. In the regions where the valuations run from \$10,000 to around \$15,000, the two main groups of callings represented are business management and the professions, chiefly law, medicine, and engineering. Salesmen, realtors, and office workers make up the next largest group, with a scattering of skilled mechanics, foremen, and store proprietors. In the grouping of assessments between \$15,000 and \$20,000, there is a closer narrowing down to business executives and professional people, while in the neighborhoods represented by assessed valuations of over \$20,000, practically all the neighbors of the faculty are bank presidents, corporation officers, leading lawyers, physicians, and persons engaged in other professions in this city. It is a significant fact

that it is in such districts and among such well-to-do neighbors that about half the full professors live.

The same data have been treated in another way by classifying neighborhoods according to the occupations of the residents and ascertaining the percentage of the faculty, considered according to rank, living in each type. For this purpose it was not necessary to eliminate the cases of persons living in apartment and rooming houses.

First Type of Neighborhood

Common labor and factory operatives.	An occasional member of the faculty
--------------------------------------	-------------------------------------

Second Type of Neighborhood

Policemen, firemen, mechanic, tailor, painter, woodworker, molder, stereotyper, taxi driver, conductor, butcher, night watchman, plumber, carpenter, telegraph lineman, electrician.	Instructors	30 per cent
	Assistant professors	10 per cent
	Associate professors	15 per cent
	Full professors	5 per cent

Third Type of Neighborhood

Dentist, chief clerk, proprietor of store, bank clerk, lawyer, salesman, doctor, railroad conductor, foreman, realtor, president of small corporation, druggist, manager of small company, pastor, city officials.	Instructors	60 per cent
	Assistant professors	75 per cent
	Associate professors	75 per cent
	Full professors	45 per cent

Fourth Type of Neighborhood

Leading lawyers and doctors, presidents and other higher officers of public service corporations, banks and insurance companies, heads of large business houses, and men of large private means (by New Haven standards).	Instructors	10 per cent
	Assistant professors	15 per cent
	Associate professors	10 per cent
	Full professors	50 per cent

The House-Proud Faculty.

EVIDENTLY the faculty are straining to live in better neighborhoods than they can well afford on their total incomes, and certainly more than they can afford on their salaries. They impose this standard of living on themselves or are forced to adopt it because of the social pressure exerted by the community, which

places them in a higher social category than their incomes warrant. Peixotto, in *Getting and Spending at the Professional Standard of Living*, has noted this tendency. She says: "The academic standard for housing can best be described by the English term 'house-proud.' This is an occupational group that will eat the plainest food and spend resignedly a total sum upon clothing that underpaid clerks would rebel against, but as a class they will insist upon owning a home in a good neighborhood with at least six rooms and usually more. Housing is, what clothes and food are not, a vital item in this class standard of life, a supreme source of 'psychic income.' The fact that the professor's house is part of his stock in trade; that he feels called upon to do a certain amount of general entertaining, as well as to invite students to his house, is doubtless an element in shaping this bias of mind. A comfortable and presentable home seems to him a necessity. The well-defined standard of living in respect to housing finds expression as soon as possible."

Additional evidence that this is the general situation among the Yale faculty is furnished by the results of the questionnaire. In tabulating the returns on the matter of housing, only the married faculty were considered, for the reason that the single members tend to live in University buildings or in rooming houses and do not therefore present a typical picture of housing conditions as related to the standard of living. Among the married faculty, the percentage living in houses which they own or are buying increases with rank, as does the sale value of the house. On the whole there seems to be a greater tendency on the part of married members of the faculty with children to own their own homes than is the case of the married faculty who are childless. The median sale value of the owned house ranges from \$10,000 in the case of married, childless instructors to \$20,000 for the full professors.

The Price of a Ten-Room House.

IN order to ascertain the type of accommodation furnished by houses of a given value, some of the leading real estate dealers in New Haven were consulted.

Attention was paid especially to two districts, that of Edgemoor Road and the streets intersecting it, and the Edgewood Avenue region. It appears that the smallest lot permitting a detached house of the type prevailing in these districts requires a frontage of at least sixty feet, if there is to be a driveway to a garage in the rear. The usual depth is 150 feet, and the value of the land averages about \$70 a front foot, a little more (\$75 to \$100) in one district and a little less (\$60 to \$75) in the other. Thus the cost of such a lot, which is the smallest suitable, is \$4,200.

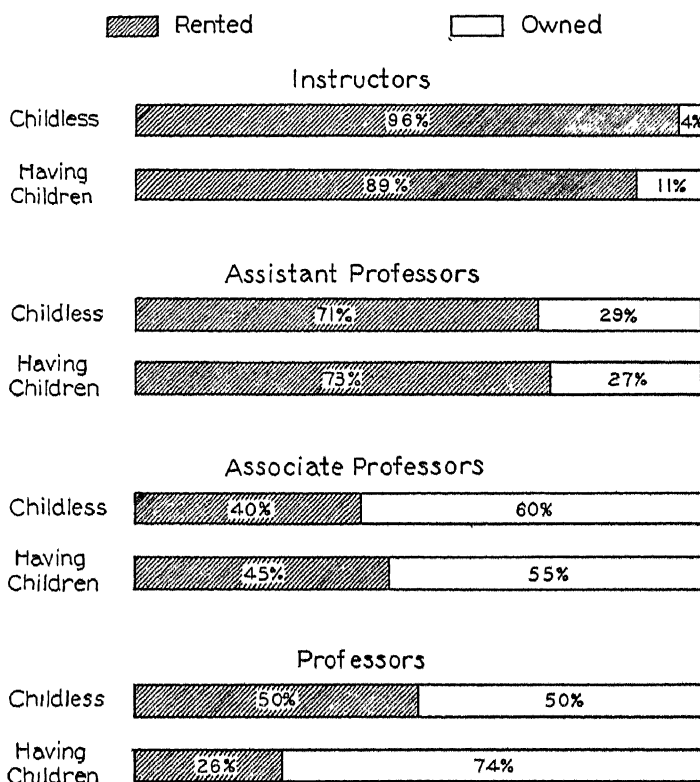
For the house a reasonable size is one of ten rooms plus one or two bathrooms. Such a house makes no special provision for a study but as servants are scarce one of the third story bedrooms may serve. The dimensions of the house may be taken as 30 x 40 x 30 feet, or 36,000 cubic feet. The building cost for the simplest, good frame construction runs about forty cents a cubic foot. Thirty cents a cubic foot is a figure sometimes quoted by builders but evidently represents poor material and scant work. If the house is built of brick, even with the plainest interior finish, and no indulgence of individual taste, sixty cents a cubic foot would be about the contract price with no extras. A garage may be had for \$600. Thus the total for land, house and garage comes to \$19,000 at the lowest, and with even a plain brick building runs to \$26,000. If individual taste is indulged at all the figure comes to about \$30,000. These figures tally fairly closely with the prices for which houses already built may be bought in the districts considered. The relation of rent to sale price in these districts is as usual about one to ten.

The experience of several members of the faculty who have recently built houses of the size and type referred to has been that the cost was somewhat higher than the estimates above quoted from real estate men, so that before they are through they have generally put \$25,000 to \$30,000 into the house, garage, land, and general development. Study of the results of the questionnaire reveals that it is not until the rank of full professor is reached that owned houses of a sale value of over \$20,000 become at all frequent.

Figure 4

SHELTER

PERCENTAGE OF HOMES RENTED OR OWNED
BY MARRIED FACULTY



As regards apartments, those of five rooms on Whitney Avenue and corresponding localities rent for \$1,500. Six-room apartments are \$1,800. Ten-room apartments in somewhat better localities are now rented at \$3,000 a year. When expenditures for shelter reach this size, the individual generally owns his home.

Rent and Its Relation to Income.

WITH the exception of the associate professors and the full professors who are married with children, the majority of the faculty of each rank replying live in rented houses or apartments and do not own their homes. About 90 per cent of the married instructors and 70 per cent of the married assistant professors live in rented houses. With the associate professors the percentage is around forty, while of the full professors, 50 per cent of those who are childless and about 25 per cent of those with children rent their residences.

The median annual rent varies from \$660 (or \$55 a month) in the case of married, childless instructors to \$1,680 (or \$140 a month) for full professors of the same family status. In general, considering all cases regardless of the number of children, the married instructors pay between \$55 and \$60 a month for rent; the assistant professors between \$70 and \$75; the associate professors around \$85 and \$90; and the full professors from about \$95 to \$140 per month. All told, the faculty member is able to pay only a relatively modest sum for rent, and consequently lives in a rather low-priced dwelling in comparison with his neighbors.

The most significant results of the study of rented dwellings relate to the percentage of income expended for rent. It is, of course, the total income that determines the amount that can be expended for that purpose. There was determined for each individual the percentage of total income expended for rent; then the median of these percentages was taken. It appears that on the whole the married members of the faculty living in rented dwellings expend about 20 per cent of their total income for rent. This result is entirely consistent with all studies of family budgets and standards of living of persons of moderate

TABLE XXI

SHELTER

Married Faculty Only

RANK	OWNED HOUSE				RENTED HOUSE					
	Number Replying	Number and Per Cent Owning House Per Cent	Median Sale Value of House	Number and Per Cent Living in Rented House Per Cent	Median Annual Rent	Median Per Cent of Total Income for Rent*	Median Per Cent of Salary for Rent*			
Instructors	{ Married, Childless . . .	22	1	4	\$10,000	21	96	\$ 660	21.5	31
	{ Married, with Children . . .	27	3	11	17,750	24	89	690	23.5	29
Ast. Profs.	{ Married, Childless . . .	14	4	29	\$17,500	10	71	\$ 870	21.0	26.5
	{ Married, with Children . . .	45	12	27	15,000	33	73	900	19.0	26
Assoc. Profs.	{ Married, Childless . . .	5	3	60	\$18,000	2	40	\$1,100	20.0	26
	{ Married, with Children . . .	20	11	55	16,500	9	45	1,000	16.0	21
Full Profs.	{ Married, Childless . . .	12	6	50	\$21,500	6	50	\$1,680	21.5	26
	{ Married, with Children . . .	46	34	74	20,000	12	26	1,110	14.0	18.5

* This has been arrived at by taking the percentage in each individual case and then deriving the median from these percentages.

income. The amount spent for rent was then compared with the salary of each person, and the median of these percentages was obtained. This study shows the percentage of salary expended for rent to be invariably higher, averaging about 25 per cent. The conclusion to be drawn, and one which is supported by the evidence cited earlier in this chapter, is that owing to social demands and their traditional status as one of the professional callings the faculty tend to live in neighborhoods that are more expensive than they can afford on the salaries they receive, and that they then strive to make up the difference, if they do not possess income-yielding property, by adding to their income through supplementary earnings. The relatively small amount received from supplementary earnings, as indicated in previous chapters, is just about enough to make up the difference between their salaries and the minimum cost of living at a professional level.

XI.

INCOMES IN OTHER CALLINGS AND THE ECONOMIC LEVELS OF THE PROFESSORS' NEIGHBORS

THE incomes and economic levels in other callings are among the most important topics involved in this investigation. They are also the most difficult. It is with such incomes and economic levels that the teacher inevitably compares his own status. They are in effect the standard which this investigation seeks to define: the economic level attained by successful men in other callings and thus the economic level to which the university professor must be able to attain in his mature years if men of ability are not to be generally deterred from the profession of learning.

It is of little significance to show, as in preceding chapters, how the faculty live, unless their mode of living can be shown also against a scale of other classes and callings in the community today. The low economic status of teachers is wholly relative. Not a single member of the Yale faculty, so far as the questionnaire shows, is suffering from deficiency of food, clothing, or shelter. The poorest among them have certain comforts which great wealth could scarcely provide a few generations or even a few decades ago. But such facts are of no effect whatever upon the emulative minds of able young men. It is the comparison of the standard of living of the academic group, and particularly the standard to which it attains in the mature years, with the standards of other callings now that determines whether young men of scholarly inclinations are willing to forego for themselves, their wives, and children the greater material advantages of other callings.

Incomes of Non-Faculty Families in Good Residential Districts in New Haven.

THE most important standard with which the status of Yale professors may be compared is that afforded by their neighbors in the city of New Haven. This is the standard with which

they feel the comparison day by day. It would have aided this investigation greatly if it had been possible to send to the non-university neighbors a questionnaire similar to that utilized among the members of the faculty.

To a considerable extent, however, this deficiency may be made good by means of data which the questionnaire itself affords combined with figures which are readily obtainable for each of the non-faculty neighbors: namely, the assessed values of their residences. These figures, both for faculty and non-faculty, are given in the supplement to the preceding chapter, that on housing. In that chapter it was shown that the faculty are quite generally economizing in their general expenses in order to live in residences better than they can well afford, and that the average value of the faculty residences is less than that of the non-faculty neighbors. It is noteworthy that the relation of total income to value of residence tends, according to the data from the questionnaire, to approximate the ratio of one to two. For all the married faculty replying to the questionnaire who own their homes, the total income is 47 per cent of the sale value of their residences. In the case of the full professors replying, the percentage is fifty-three, or a little more than the ratio of one to two. In other words the total annual income of a family is about half as large as the sale value of their residence; and if this relation holds true of faculty households, it is probable that their neighbors, living less economically, have incomes greater than half the sale value of their residences.

This is not a mere chance relation. One-tenth of the value of the house and lot is taken by realtors as about the proper rental value or carrying charge on an owned home. Studies of family budgets and costs of living indicate, as holds true also of this study of the faculty, that in the case of incomes of moderate size the total income is generally five times the sum expended for shelter. These two figures (five times one-tenth) together place the total income at five-tenths, or one half, the sale value of the residence. Thus, for example, a family in a \$12,000 residence rarely receives less than \$6,000 a year. Estimates based on value of residence are only rough approximations; but this

device is useful for a minimum estimation of the relation between faculty and non-faculty incomes.

This mode of estimation may be applied to the figures contained in the appendix to the preceding chapter for houses in the high class residential districts (e.g., St. Ronan Street, Edgehill Road, and the adjacent streets, Regions VIII to XII) where about half the full professors live. The results show that while those members of the faculty (of all grades) who live in these regions are generally occupying houses valued, in round numbers, from \$15,500 to \$37,000 (average \$21,156), their neighbors are living in houses which are assessed considerably higher. The values in round numbers range from \$16,000 to \$45,000 (average \$24,691). Application of the one to two ratio indicates an average income for the faculty residents of about \$10,500, and for their non-faculty neighbors of about \$12,500. The presumption is that the actual incomes are higher than these estimates because the values which the Committee is compelled to use for the residences are assessed values, and assessed values are generally less than sale values.

Comparison of Assessed Values of Residences of Faculty and Non-Faculty Members of the Graduates Club.

IN carrying out further the comparison between the standard to which the faculty attain in their mature years with that of other callings, the Committee investigated the assessed valuations of the residences of all members of the Graduates Club who graduated from college in 1900 or earlier. These men are approximately fifty years of age or older and represent the group who have been long in service in their respective callings. The Committee confined its attention to those members who reside in New Haven and excluded those who do not live in single family dwellings. The residences of the administrative officers of the University (about ten cases) were also excluded from the study. The assessed values of the residences of the members selected were obtained from the records of the Board of Assessors. The assessed values of the residences of the faculty members of the Club were then compared with those of

the non-faculty members. The cases include sixty-seven faculty members and 127 non-faculty members of the Graduates Club.

For the faculty residences the average assessed valuation is \$24,382; for the non-faculty residences the average is \$31,731, or 30 per cent more than for the faculty members. The discrepancy is noteworthy, for the two groups of members are quite comparable as to age, experience, and attainments in their respective fields. Applying the estimate that the total income of a family is at least half as large as the sale value of their residence, the non-faculty members of the Club may be inferred to have an average level of living of at least \$15,865. The corresponding figure for the faculty members of the Club is \$12,161.

The following table shows the number and percentage of faculty and non-faculty residences of given assessed values, considered in \$10,000 groupings.

TABLE XXII
ASSESSED VALUES OF RESIDENCES OF MEMBERS OF
THE GRADUATES CLUB

RESIDENCES	FACULTY		NON-FACULTY	
	Number	Per Cent	Number	Per Cent
Under \$10,000 . . .	3	4.5	10	8.0
\$10,000 to \$19,999 . .	35	52.0	51	40.0
\$20,000 to \$29,999 . .	16	24.0	19	15.0
\$30,000 to \$39,999 . .	4	6.0	21	17.0
\$40,000 to \$49,999 . .	3	4.5	7	5.5
\$50,000 to \$59,999 . .	1	1.5	6	4.5
\$60,000 to \$69,999 . .	1	1.5	0	..
\$70,000 to \$79,999 . .	1	1.5	3	2.5
\$80,000 to \$89,999 . .	3	4.5	2	1.5
\$90,000 to \$99,999 . .	0	..	2	1.5
\$100,000 and over . . .	0	..	6	4.5
<i>Total</i>	<i>67</i>	<i>100.0</i>	<i>127</i>	<i>100.0</i>

Certain results of this tabulation are particularly significant. It will be noted first that a smaller percentage (4.5) of the faculty members live in residences assessed at a figure below \$10,000 than is the case with the non-faculty members (8.0). This probably indicates a greater social pressure on the faculty members to live in more valuable residences.

The grouping of assessed values from \$10,000 to \$19,999 is the modal or most frequent class in the case of both faculty and non-faculty residences. It is noteworthy, however, that 52 per cent of the faculty residences are in this grouping as compared with but 40 per cent of the non-faculty residences. Seventy-six per cent of the faculty residences are assessed at from \$10,000 to \$29,999, while only 55 per cent of the non-faculty residences are in this grouping. Above \$30,000 the faculty residences are few in number and but a small percentage of the whole. There are no cases of faculty residences assessed at \$90,000 or more. The non-faculty residences do not become few in number until after \$40,000 is reached. Above this point they are more numerous than the faculty cases, while there are two cases of non-faculty houses assessed at \$90,000 to \$99,999 and six at \$100,000 and over.

This study shows clearly the higher assessed valuations of the non-faculty as compared with the faculty residences, a discrepancy which becomes greater the higher the valuations. Eighty per cent of the faculty members of the Club live in residences assessed at less than \$30,000. In order to include eighty per cent of the non-faculty residences it is necessary to take in the valuations up to \$40,000. The average assessed valuation of this first eighty per cent of the faculty residences is \$17,037; of the first eighty per cent of the non-faculty residences, it is \$19,733. The same result of lower average assessed valuation of faculty residences is obtained by eliminating the extremes in both cases—the upper and the lower 10 per cent—and considering the middle 80 per cent. For faculty residences the average assessed value of the middle 80 per cent is \$20,409; and for non-faculty, \$25,226.

The conclusion is inevitable that the non-faculty members of the Graduates Club, who represent other callings, have considerably higher incomes and more expensive modes of living than their faculty associates.

Salaries and Wages in Some Other Callings, Compared with Faculty Salaries.

IN the appendix to this chapter (Appendix C) is given de-

tailed information regarding the earnings of other callings to which reference is made below.

Perhaps as close a parallel for the conditions under which the full professors live, as is available, is afforded by the officers of the life insurance companies with their head offices in Hartford, a city with residential conditions similar to New Haven. The median of the salaries of these men, listed in the table in Appendix C is \$13,800. For the assistant and associate professors and the instructors, comparison may be made with figures kindly furnished the Committee by two public service corporations, the New Haven Gas Light Company, and the Southern New England Telephone Company, and by the service department of the University. Similar to the latter are figures taken from the United States *Monthly Labor Review*.

A comparison of University salaries with those in the Army and Navy also shows that the former are for all ages below the latter. This is also true, with a possible exception of the very highest grades, in the scientific positions under the United States Government, in which the salary scale runs materially higher than that of the universities. The scale of salaries recently adopted for the public schools and city-supported colleges in New York and also Columbia University shows an appreciation of the need for better pay for teachers.

The Committee made earnest efforts to obtain reliable information as to the net earnings of lawyers, doctors, and dentists in New Haven. Nothing more definite than estimates have resulted; but these estimates rest on the statements of six lawyers and five doctors, all well-informed men who independently considered the conditions among their professional colleagues in New Haven and gave the Committee conservative statements.

As regards the lawyers it is estimated by all the informants that more than 10 per cent of the practising lawyers in New Haven (including all ages) make a net professional income in excess of \$10,000. In order to attract men of the requisite ability from practice into the faculty of law schools, the policy advocated by those who are trying to raise the quality of legal education is to offer salaries for the professors equal to those

paid to judges in the upper courts of the state. The judges of the supreme courts of Connecticut and Massachusetts now receive \$12,000; lawyers accepting these positions frequently do so at a considerable financial sacrifice. The salaries of federal judges have recently been considerably increased. The salaries of state and federal judges are quoted in the appendix to this chapter.

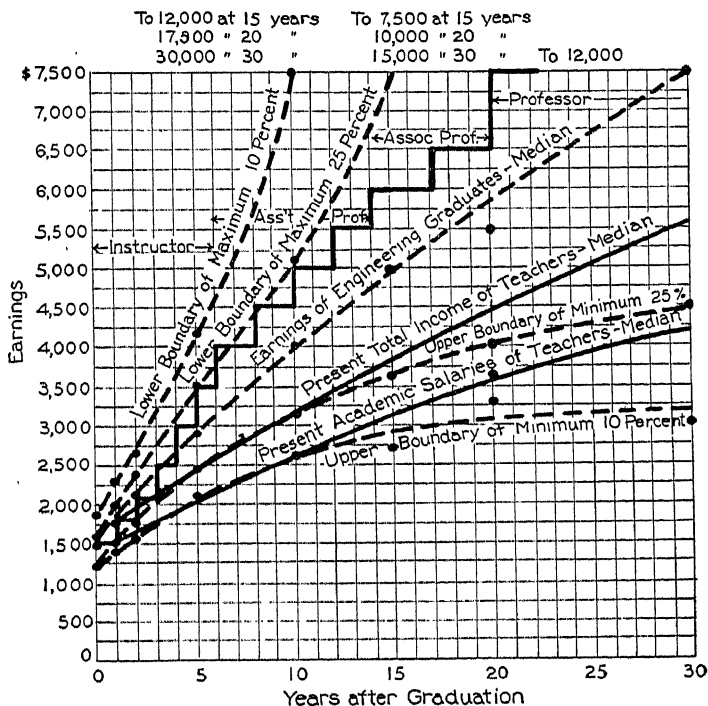
With respect to medicine, the best estimates are to the effect that 20 per cent of the graduates of first-class medical schools make a net professional income of \$10,000 within eight to ten years after they begin practice in a city of the size and conditions of New Haven. In their mature years the abler men in medicine make \$15,000 to \$25,000 and some surgeons considerably more.

Estimates on a similar basis indicate that dentists who develop an active practice in New Haven make an annual income of \$15,000 or more.

The Committee also gathered some information regarding the salaries and other income of ministers. While average salaries in the ministry the country over are low, there are numerous cases of preachers and pastors in the more prominent churches of large cities who receive salaries greater in amount than those paid to divinity professors. Denominational year-books, like the Congregational, which give data on ministerial salaries, report many instances of this sort. It is estimated that ministers of the strong churches in New Haven and other large cities of Connecticut receive from \$6,000 to \$10,000 a year. The Committee has been advised by a divinity school dean, who is exceptionally conversant with the general situation, that "quite a number of men in the active ministry are receiving salaries of ten, twelve, fifteen, eighteen, twenty, and a few of them twenty-five thousand dollars a year. They are men of unusual ability. They are effective preachers, good pastors, strong and wise in organizing and administering their parish activities. They have those qualities of leadership for which strong, well-to-do churches are ready to pay generous salaries. There are no men on theological faculties in this country who are receiving salaries equally large." Were such ministers to

Figure 5

PROPOSED SALARY SCALE FOR ENGINEERING TEACHERS



Legend: Proposed Salary Scale for Engineering Teachers is Indicated by Stepped Line

— Engineering Teachers

- - - Engineering Graduates

leave their churches to accept a university appointment, they would do so at a great financial sacrifice. In fact, universities have found themselves unable in a number of instances to call from the active ministry the type of men they want, because they cannot pay salaries that are as large, often by a wide margin, as those which the men are now receiving.

Particular attention should be called to a report (reviewed in Appendix C) on the earnings of engineers in practice as compared with the salaries of the teachers in schools of engineering. That report is based on a nation-wide investigation by a committee of which Dean Charles H. Warren was chairman. The median earnings of all engineers in practice after the first year are found to exceed the salaries of teachers of engineering of equal age, and the spread increases steadily with age. On the basis of this evidence the salary scale which that committee recommends is framed so that the economic status of teachers of engineering may approach the lower limit of the most successful 25 per cent of engineers in practice. This salary scale rises to a maximum of \$12,000 a year for the mature full professor. For engineers of the same age in practice the lower limit of the most successful 25 per cent is \$15,000. These findings and proposals are presented graphically in the figure on the preceding page, which is reprinted from Bulletin No. 4 of the Investigation of Engineering Education.

XII.

THE TYPE OF SALARY SCALE IN RELATION TO RANK AND TENURE

THE problem of faculty salaries is not limited to a mere question of magnitude, although that is doubtless the predominant factor. Another aspect of great importance is the type of the salary scale, as distinct from the absolute amounts of the several salaries. Three possible plans deserve consideration: (1) a fixed uniform salary rate, (2) salaries determined by individual bargain between each member of the faculty and the University administration, not controlled, or only formally controlled, by any fixed schedule, and (3) a scale of salaries, increasing with the rank and length of service for each grade, according to a definite schedule.

It is obvious that the first and second of these plans as thus stated represent extremes which could scarcely be expected to receive serious support. In fact the third plan would probably be accepted with little argument as the one that should determine salaries of the subordinate grades below that of permanent or full professor. But for professors the plan of a uniform salary may also fairly ask a hearing. It was actually the rule within the various schools of Yale not so long ago. Similarly, although a *régime* of pure bargaining, without any reference whatever to an established schedule, would probably receive little support, there may be those who would favor, or at least assert the necessity of, a wide latitude of departure from the formal scale in the way of special determination of individual salaries. With these assumptions, the Committee has given some study to these three plans of salary determination.

The Flat Salary Rate for Professors.

ASSUMING that the flat salary rate would apply to full professors only, there may be urged in its favor the advantages which obviously arise from uniformity of treatment of men of the same rank. On the other hand there is disadvantage in the artificiality of a plan which disregards age and length of service.

This plan is, moreover, not in harmony with the normal progress of income in most walks of life. In business, in the professions, and in virtually all lines of productive effort, the man who is above the ranks of the ordinary wage earner expects his income to show a steady increase as he grows in age, experience, and reputation, until such time as he may begin the process of gradual retirement. The value of the individual is ordinarily presumed to increase with the length of his service. Whatever may be determined as the proper remuneration for University professors, it would be much easier to put such remuneration into effect in the form of a gradually increasing scale than as a flat rate. Moreover, the latter rate, upon an adequate salary basis, would run the risk of giving the youngest professors salaries disproportionately high, while still leaving their seniors with the feeling of inferiority when comparing their salaries with the rewards of their contemporaries in other walks of life.

The Policy of Individual Bargaining.

THE plan of special bargaining, in connection with a formal salary scale which may be departed from in any individual case, may be supported on the ground that only so can the University attract and retain men of distinction in the face of their opportunity to secure elsewhere higher incomes than the formal University salary scale affords. This situation, which is the actual case in many universities, results primarily from the low salary scale. If the normal University salary scale is low—lower than men of the ability which the University needs can command elsewhere—then it follows that such men can be obtained only by means of a bonus in excess of the formal scale. By the same token it follows that the formal scale exists only for those who, because of mediocre ability or lack of ambition or ill fortune, are not in demand in outside callings. While many men of the highest qualities may thus be caught in the net of low salary for the present, it is certain that as time goes on and adjustments are made, the low formal salary scale will be the remuneration of mediocrity, while the University will in general have upon its faculty men of outstanding ability only

to the extent that it departs from its formal salary scale by individual bargaining.

There are further important objections to the plan of individual bargaining. If salaries for men of similar rank and length of service within the rank are markedly unequal, the differences must be justified, formally at least, on the basis of the value of the service rendered to the University. Determination of salaries thus rests upon the personal judgment of someone. The ordinary business criteria by which cash values of personnel may be determined are lacking in the teaching profession. Any determination must be in the nature of an approximation, with considerable margin of error, and with certainty of differences of opinion. This is on the assumption that value of service is actually the sole controlling consideration. As a matter of fact other considerations enter. Bargaining results from calls received by the instructor either to other universities or to opportunities outside the academic field. Or it occurs when the University considers calling an outside man. The chief evils of the bargaining system are uncertainty and unfairness. The uncertainty is of importance primarily to the University administration in its efforts to plan for the future. The bargaining plan inevitably increases the difficulty of predicting over a period of years the sums which will be necessary for salary budgets. The unfairness affects the members of the faculty. Morale is lowered and bitterness is sometimes engendered when two men of equal rank and tenure within the rank receive unequal compensation merely because there appears to be an unequal demand for their work.

So long as salaries are low, the University apparently must have the power to offer salaries above the usual scale to new appointees when necessary and to members of the faculty who would otherwise go elsewhere. Given an adequate salary scale, the reasons for discrimination largely disappear. It is not pretended that all men are of equal value to the University. But the evils resulting from an attempt to appraise the unequal values of permanent officers and reward them accordingly appear to the Committee to be much greater than those which

would arise from an assumption of equality as to permanent officers who are equals in rank and length of tenure within the rank.

The Salary Scale Based on Rank and Length of Tenure.

BRIEFLY this plan consists in a schedule of grades of faculty members, from instructor to professor. For those grades below that of permanent professor, there is a stated term, at the end of which the officer would be considered for promotion, reappointment upon the same grade, or dismissal. For each grade there is a definite salary or a definite schedule of salaries, increasing by stated amounts at stated intervals during the length of the term. This is in effect what now prevails, formally at least, for all grades below that of professor. The principal modification proposed is the carrying up of this salary scheme into the grade of full professor. For this grade there would be a definite beginning salary, which would automatically increase every so often by a certain amount up to a fixed maximum. Promotions of men on the University faculty would not depart from this schedule. Appointment from outside would necessitate only the determination of the point in the schedule at which the new appointee should start. The result would be that all appointments and promotions would be to particular grades and positions, following which the salary would be automatically determined. The salary, in other words, would be determined by the position, not by the individual.

This plan avoids the weaknesses both of the flat rate plan and of the plan of individual bargaining. The Committee is aware of the obvious objection that such a plan might appear to offer the shelter of permanent tenure and automatic promotion to professors who are notoriously derelict in their duties. On the contrary the Committee proposes only to assure security and just reward to the man of ability who conscientiously does his duty, while offering no obstacle to the elimination, by proper procedure, of the man who fails to do so. In fact the plan here proposed would have a strong tendency toward raising the level of professorial appointments. It seems certain that, if this type of salary scale were to be adopted and at the

same time salaries were brought up to an adequate level, even more careful scrutiny than at present obtains would be given to all candidates for full professorships. Even more than now every possible effort would be made to avoid the appointment of men who might not measure up to the trust reposed in them.

The weight of the argument thus bears heavily against the plan of the individual bargain and in favor of the fixed salary scale, based upon rank and length of tenure within the rank. This conclusion, however, rests definitely upon the assumption of an adequate salary scale, that is, one that is sufficient to attract and hold men of the caliber which the University wants upon its faculties. Under such an assumption, the chief argument in favor of the plan of bargaining falls. There would, it is true, still be occasions upon which the University might find itself unable to bring in from outside some highly paid man whom it might desire. But the Committee is of the opinion that this consequence should be accepted, believing that the advantages of the regular salary scale far outweigh any such occasional losses. After all, given an adequate salary scale, the University would seldom suffer serious loss. The position of the University professor has certain powerful attractions, and, given an adequate salary, men to whom the academic life has an appeal would be found willing to forego greater pecuniary rewards in the world outside. And the really desirable men whom the University would still fail to attract because of the greater rewards open to them would be few in number.

Permanence of Tenure.

THE suggestion has been made that if members of university faculties were to receive a material increase in the salary scale under which they are working, they should forego the existing custom of permanent tenure for full professors. The implication of such a suggestion is that permanence of tenure is part of the compensation of the faculty member. In one sense this is true. Permanence of tenure, however, has implications which have nothing to do with rewards. It is a very old custom in university education. To abolish permanence of tenure would be to reduce the university faculties entirely and completely to the status of

employees. Such an action would be a heavy blow to the prestige of both learning and education. Permanence of tenure enables that portion of the faculty which has achieved distinction in serving the University through teaching and scholarship to coöperate with the Corporation and Administration on a footing of independence in the management of the University and in furthering the cause of learning. Most important of all, it enables the professor to pursue his vocation of teaching and research in a spirit of scientific impartiality and intellectual independence.

XIII.

ENLARGEMENT OF THE FACULTY AS A CAUSE OF LOW SALARIES

THE average salary which a university can pay its teaching staff is dependent upon two factors: first, the total amount of money which the university has available annually for salaries; and second, the number of men among whom this amount is distributed. Thus the average salary is essentially a quotient obtained by dividing the available money by the number of the faculty. The number of the faculty is, therefore, as important a factor in determining the average salary as is the total amount of money available for salaries. This proposition, although self-evident in principle, is generally neglected. Nevertheless it carries implications of critical significance, to which this Committee has given serious consideration.

Relation of Funds to Size of Faculty.

It will here be shown that the number of the faculty has, in fact, been as important a factor in determining the salary scale as has the University's income available for salaries. It will be shown also that the progressive increase in the number of the faculty during the past decade has been a determining factor in preventing the salary scale from increasing in proportion to the University's income. Although some enlargement of the faculty was necessary under the conditions of the time, its consequences are none the less clear. The obvious inference is that increase in the salary scale will be possible in the future only on condition that the size of the faculty shall not increase as fast as the University's income. No amount of increase in University endowments or income will avail to raise the salary scale if the number of teachers increases at an equal rate. Even the promise of liberal donations during the coming years affords by itself no assurance of improvement in the economic status of university teachers.

Many American universities have large incomes from investments, and during recent years donations have come to uni-

versities in unprecedented amounts. For example, Yale University is heavily endowed, and increases in the income bearing funds in past years, even before the recent drive, have been generous. The total productive funds of the University, which amounted to about twenty millions on June 30, 1917, had increased by June 30, 1927, to over forty-nine millions. While a considerable part of the income therefrom goes necessarily to other objects than faculty salaries, yet the sum devoted to such salaries has also shown substantial increase. Taking the four non-professional schools—Yale College, Sheffield Scientific School, Graduate School, and Freshman Year—as a group, the total amount expended for faculty salaries in the year 1918-1919 was \$468,232; and in 1927-1928 it was \$1,174,650. Here is an impressive increase of 151 per cent in the amount divided among the faculty in salaries. But the number of the faculty in these schools, during the same period, increased from 169 to 294, an increase of 74 per cent. Thus nearly one-half of the increase in funds devoted to salaries has been absorbed in increase of numbers, and increase in the salary scale has been correspondingly impeded.

Analyzing these figures by rank, we find that the percentage increase in average salary was least for professors and greatest for instructors. The pressure for an increased teaching staff has thus been met in part by a change in the composition of the faculty of these four schools. While the total number of the faculty was being increased by 74 per cent, the number of full professors increased only 33 per cent; the increase in instructors was, on the contrary, 129 per cent. In 1918-1919 full professors made up 36 per cent and instructors 27 per cent of the total faculty. In 1927-1928, only 28 per cent of the faculty were of full professorial rank, whereas the percentage of instructors had increased to 35 per cent. The percentage of associate and assistant professors has not changed, being 37 per cent in each year. Herein lies the explanation of the fact that the average salary has increased in each grade relatively more than the increase for the total of all grades. This is due to the increase in the numbers of instructors being relatively greater than that of the professors, a change in the composition of the faculty which

tends to depress the average salary of the body as a whole. Such a change must in the long run render promotion slower, and involve also a large "labor turnover" among the younger members of the faculty.

These changes in the salary scale and in the composition of the faculty are shown in the following table:

TABLE XXIII
COMPOSITION OF THE FACULTY AND
AVERAGE SALARIES

*Graduate School, Yale College, Sheffield
Scientific School, Freshman Year.*

	<i>Professors</i>		<i>Asst. and Assoc. Profs.</i>		<i>Instructors</i>		<i>Total</i>	
	<i>Num- ber</i>	<i>Average Salary</i>	<i>Num- ber</i>	<i>Average Salary</i>	<i>Num- ber</i>	<i>Average Salary</i>	<i>Num- ber</i>	<i>Average Salary</i>
1927-1928 . .	81	\$6,502	110	\$3,784	103	\$2,249	294	\$3,995
1918-1919 . .	61	4,291	63	2,332	45	1,323	169	2,770
Increase . .	20	\$2,211	47	\$1,452	58	\$ 926	125	\$1,225
Increase Per Cent . .	33	52	75	62	129	70	74	44

The past decade thus shows a very impressive increase in total funds devoted to salaries, accompanied by a distinctly more moderate increase in the salary scale and an even less increase in the average salary of the faculty as a whole. The conclusion to be drawn is that salaries cannot be determined arbitrarily, but must always depend upon the relation between the two factors: university income available for salaries, and faculty numbers.

Demand for Expansion.

THE first of these factors, that is, the size of the University's endowment, lies outside the field of this report. It may be pointed out, however, that many bequests to the University are given expressly for buildings and other non-instructional pur-

poses; if not so expended, they would have to be refused. The question of the size of the faculty, on the other hand, is very pertinent to this discussion, for the reason that the faculty is itself to a considerable extent responsible for the increase in its numbers which tends to prevent the attainment of an adequate salary scale. In every university faculty there is a natural and desirable strain toward perfection of the offering to the student. Courses dealing with new subject matter seem to many members of the faculty desirable, almost indispensable, while the objective of others is smaller courses and individual instruction. Honors courses and other special methods of instruction have their earnest advocates. These and similar proposals involve demands for expansion of the faculty.

Another factor leading to enlargement of the faculty is the sudden great influx of students into colleges and universities, which has been a striking post-war phenomenon. The universities have been swamped with applicants for admission. Owing to the increasing size of the student bodies, the burden of teaching has threatened to become so great as to leave to the members of the faculty no time or energy for scholarly activities other than routine instruction. Universities have thus been forced to increase the size of their faculties and even, as at Yale, to limit the number of students. In the ten-year period referred to above, the student body in the four non-professional schools of this University increased 77 per cent, while the faculty of these schools increased 74 per cent.

This increase in the number of students, coupled with the desire to maintain or improve educational standards, has produced a constant pressure for expansion of courses and increase in the number of teachers. More expensive methods of instruction have also been introduced or asked for in many departments. These demands often arise from the competitive ambitions of the departments of the University. Each presents in the strongest possible terms its own claims for growth and expansion. A less ambitious attitude upon the part of any single department would not afford relief to the University budget as a whole; it would merely make easier the satisfaction of the demands of other departments. The faculty, represented by the department chair-

men, appear before the University authorities practically always as advocates of expansion. The University authorities, charged with the apportionment of its income, are thus placed in the position of being able to promote salary increases only in the face of the opposition of the faculty itself, and the faculty finds itself standing in the way of its own advancement in salary.

Ratio of Teachers to Students.

LIMITATION of the number of the faculty is not, however, a question which can be considered solely in relation to the salary level. If the work of a university is to be carried on, there must be a sufficient number of teachers. It is essential that the size of the faculty shall not be so small as to provide inadequate instruction for the students or to overload the teachers. The questions thus arise: What is a sufficient number of teachers for a given number of students? What is the ratio of teachers to students which, on a given instructional budget, will permit salaries sufficient to obtain a faculty of high ability?

The outstanding fact in regard to the teacher-student ratio is that, under different systems of teaching, the proportion of teachers to students differs widely. The implications of this fact are often overlooked. It is not unusual for students, graduates, members of the general public, and even some of the faculty to advocate at one and the same time both increase of salaries and methods of teaching that require a larger faculty. They overlook the fact that on a given instructional budget any method of teaching involving a larger faculty involves also smaller salaries.

Three systems of teaching require notice here in respect to their teacher-student ratios. These are: (1) The system of "recitations" in small classes and in numerous subjects characteristic of American colleges. (2) The system of lectures to large classes, as employed by European universities generally, and as adopted to an increasing extent by American universities in recent years because of the rapid increase in the number of students. And (3) the tutorial system, particularly in connection with "honors" courses, now widely considered as a means of providing for the more intelligent and ambitious students.

Nothing is to be said here regarding the educational advantages or disadvantages of any one of these systems. How students are best taught is outside this discussion, for strictly educational questions are beyond the scope of this report. But the general factors necessarily influencing the teacher-student ratio of every system are germane. These factors are (a) the number of subjects that the student studies at the same time; (b) the number of hours per week of direct instruction that he receives; and (c) the number of students that each teacher instructs.

In regard to the first of these factors it is to be noted that if the student has four or five or six courses at once, as is common in American colleges, he usually has a different teacher for each course. If the student takes only two or three lecture courses at once, as is commonly the case in European universities, he has only that number of teachers. If the student studies only a single subject, as is often the case under the English college system, he has but one teacher, who is his tutor.

In regard to the second factor, that is, the number of hours a week of direct instruction that the student receives, the practice in American colleges varies from twelve to eighteen recitations a week with fifteen hours as the most common requirement. In European universities under the lecture system the student has ordinarily not more than half so many hours a week in the class room. In an English college one hour a week with his tutor generally suffices for a student working intensively.

In regard to the third factor, that is, the number of students that the teacher instructs, the ratios work out as follows: an instructor taking part in one of the large courses in an American college may meet a large number of students in several groups of moderate size or "divisions"; but as these students usually have four other teachers, the teacher-student ratio involves five teachers for the number of students concerned. The result may be of the order of one to twelve, or one to fifteen. In European universities a lecturer may speak to a very large audience and the lecture is never repeated to another "division" in the same term. In an English college a tutor may have fifteen or twenty or more students, and he may be their only instructor. The ratio is in that case one to fifteen or one to twenty or more.

Nor is the ratio greatly changed if the student attends also one or two large lecture courses.

With these factors it is evident that the teacher-student ratio must always be rather high under the "recitation" system. Under the lecture system it is more variable; but when the student is not expected to take more than two or three courses at once, the ratio tends to be one teacher to a rather large number of students. Under the tutorial system, if used intensively and exclusively, the ratio is that of one teacher to a rather small number of students. If the student has more than one tutor, as appears to have been attempted at some American colleges, the resulting ratio would be that of one teacher to an extremely small number of students.*

The tutorial system, as employed in the English universities where it originated, is now combined with the system of large lectures, so that the ratio at Oxford and Cambridge is determined by the combination of the two systems and is not very different from that of American universities. "Many of the lecture classes are very large, two hundred and fifty students or more, and one lecturer a term suffices," as one of the higher officers at Cambridge expresses it. In other words, the large class is always taught in a single group, never in "divisions," and the low tutorial ratio of students is thus balanced. One lecturer suffices in three or four hours a week in the class room for instruction which, under the "recitation and division" system, might require three or four or more instructors each spending

* At Swarthmore "honors students are taught in small seminars containing on the average five students each, and meeting continuously for two hours each week. . . . Since each seminar meets for two hours a week the conduct of five of them would be a full teaching load for one professor, provided each was conducted by one man alone. It is, of course, not planned to confine the work of any teacher to the conduct of seminars but, speaking quantitatively, twenty-five honors students would consume the full time of one professor or half the time of two professors. In practice the expense thus incurred has been doubled by the fact that it has been found important to have two professors instead of one in each seminar in order to dovetail the different subjects of an honors group together, or, failing this, to make arrangements whereby honors students attend two seminars each week." Robert C. Brooks, *Reading for Honors at Swarthmore*, Oxford University Press, 1927, page 112.

nine hours a week in the class room; that is, perhaps nine or more times as many teacher-hours under the one system as under the other. For these reasons at both Oxford and Cambridge under the tutorial and lecture systems the teacher-student ratio is about one to sixteen, while in Yale University, where the "recitation" and lecture systems are chiefly in use, the ratio is about one to thirteen. (For data from the English universities and the ratio at Yale, see Appendix D.)

The question of the number of subjects that the American college student should study simultaneously is now rather widely discussed, but appears to have elicited as yet no facts worthy of citation here. For American universities today the choice, broadly speaking, seems to lie between instruction of the students in large groups or in small groups. There is here involved no question of limiting the field of instruction: the application is made only to those courses and subjects in which a large number of students have to be provided for; it may be in one general course of many divisions, or in many closely similar and essentially equivalent small courses within one general subject. Much of the work of a university is in such courses and subjects.

On this question mere opinion is being replaced by precise evidence, for the relative advantages of large and small classes are now being investigated experimentally. The results thus far obtained have been summarized by Professor M. E. Haggerty in his address as chairman of the Section on Education of the American Association for the Advancement of Science, published in *School and Society* for January 14, 1928. He says: "We know too little as yet about what constitutes good college teaching for us to be cavalier in our criticisms. We may easily maintain the thesis that there is no single measure of good college instruction; the total college situation is such as to demand differential techniques and standards to meet varying student needs and variable curricular content. For this reason any generalized statement about college teaching can be shown to be false and inadequate if interpreted as universally applicable. Good college instruction for one subject or level of advancement may be bad college teaching if carried over to another

field or to the more mature student years. . . . Is the lecture an effective method of instruction? Is it superior to the recitation? How essential is laboratory teaching? Are large classes inimical to student achievement? . . .

"The special experiment on class size and student achievement to be detailed here, which is illustrative of the entire investigation, was carried through in the beginning courses in physics by Professor Henry Erikson, head of that department [at the University of Minnesota].

"This particular experiment was in part stimulated by the general university investigation of class size. . . . The cause lies deep in the prevailing condition of all our colleges and in most departments thereof by which the size of classes has been gradually but irresistibly increased. Year by year the number of students in physics classes has been pushed up from 20 to 30, to 40, to 50, to 75, to 150. Such radical shift in teaching conditions is a genuine basis for alarm to those whose educational belief and methods have committed them to the small class idea as has been true of most of us. To test in objective fashion a teaching condition that had been forced upon them, therefore, was the real motive of the class-size experiment in physics.

"The method of the experiment was the familiar one of parallel sections and paired groups. There was one section of twelve students and another section of one hundred and fifty students, including twelve that in certain objective measures were the equal of the twelve in the small group. The same instructor taught both groups by the same method. The achievement of all was checked by the same measures and independently of the instructor. The results failed to reveal any advantage to the small group.

"The experiment was repeated in succeeding quarters in different units of subject matter and by different instructors and is now well on in the second year of investigation. The burden of proof is still on the small class idea. . . . The study reveals that it costs 7.6 times as much to teach a student in the small class as it does his equal in the large class."

This Committee takes no position as to the educational aspects of the question of large versus small classes: that is,

whether one professor lecturing to a large class achieves more or less than several instructors teaching the same number of students by "recitations" in small "divisions." But the importance of this question in relation to the teacher-student ratio and the salary problem is obvious.

Outlook for the Future.

THE teaching profession has its economic future largely in its own hands. If methods are developed for keeping down the teacher-student ratio, so as to hold the faculty at about its present size, while still giving effective instruction in the larger subjects, a steady improvement in the economic status of the profession may be expected. The annual financial accessions to American universities are very large. For example, funds available for salaries accrue to this University by bequest and other forms of donation, even apart from the recent drive, at the rate of about 15 per cent a year. Nor is the position of Yale University peculiar in this respect, for the United States Bureau of Education reports with reference to 975 universities, colleges, and professional schools that from 1924 to 1926 the total receipts increased from \$388,242,587 to \$479,774,664, an increase of approximately 24 per cent. During the same period additions to endowments increased from \$46,726,677 to \$72,374,608, an increase of nearly 55 per cent.* This rate of increase in university funds is sufficient, if largely devoted to raising the salary scale, instead of enlarging the faculty, to effect a rapid improvement in the economic status of university teachers and in a few years to place them on a level comparable with that of other professions.

The general standpoint of this report may be again stated: Adequate compensation for teachers is not here considered as an end in itself, but as a means to an end. The fundamental object is to secure a high level of ability; and this can be obtained only by adequate salaries.

* Bureau of Education, Bulletin, 1927, No. 40, pp. 2-4; *Statistics of Universities, Colleges, and Professional Schools, 1925-1926.*

XIV.

CONCLUSION

THE personnel of the faculty is of the first importance. No amount of machinery however ingenious, or organization however complete, or size of faculty however large, can be an adequate substitute for the able and devoted teacher striving to learn the truth and to expound it to his students. Such teachers have never been exigent in their demands for material rewards; and they are not so now. Men of outstanding ability are willing to renounce the larger financial prizes of business and the professions if they are assured of a reasonable level of living. They are content to pursue laborious and economical lives, provided their calling is respected. The ultimate test of the respect in which any calling, save perhaps the ministry, is held, is to be found in the remuneration accorded to those who pursue it. If the teaching profession is reasonably equalized economically with other callings, and if at the same time the choice of personnel is made rigorously selective, the other unfortunate elements in the situation are likely to adjust themselves.

Throughout this report attention has been directed particularly to the conditions in the non-professional schools of the University. The high educational standards recently adopted for the professional schools have been predicated upon the payment of salaries which, if less than the incomes which the most successful lawyers and doctors attain, are yet intended to afford a professional standard of living. Although these conditions are now scarcely fulfilled, the principle is recognized that in order to obtain ability the University must pay a price which approximates that which it commands in the practice of the professions.

It is in accord with economic law to forecast that a lower level of remuneration in the non-professional schools of the University will lead in no long time to a correspondingly lower quality of ability. The difference of a few thousands of dollars in salary makes the difference between an anxiety that lowers

efficiency and tends to dissipate energy in outside activity, and that feeling of safety and enfranchisement in the pursuit of a life interest that increases efficiency by concentrating energy and effort. If undergraduate education is to retain the value which the American college has had in the past, the salaries of undergraduate teachers must also meet the market price of ability.

It is not an American custom to rely upon men of private means to serve the public at merely nominal salaries, except in advisory or part-time positions. Nor has celibacy ever been a recognized requirement of American university teachers. In England, on the contrary, both of these conditions were formerly recognized. It is therefore of interest to note that while American universities, as this report suggests, may be moving toward these conditions, the English universities have definitely discarded them as not consonant with the enlistment of a high grade of men in the profession of teaching and scholarship. Thus the Report to Parliament in 1922 of the Royal Commission on Oxford and Cambridge states without qualification that "each University must be placed in a position to offer to all those who do its work a salary and pension prospects enabling a man to marry and bring up a family [five children appear to be regarded in the report as a normal family], with amenities and advantages of education like those of other professional families. On that condition Oxford and Cambridge will be able in the coming era to keep enough of their best students to do their teaching and research—but not otherwise."*

All problems of better teaching and more productive research are reducible ultimately to terms of personnel. Personnel of high quality, although not obtainable by money alone, can nevertheless be sacrificed by inadequacy of material rewards. The essential condition for this enlistment consists in a basic

* The commission included such men as Herbert Henry Asquith, its chairman; Rowland Edmund, Baron Ernle; Gerald William Balfour; Arthur Henderson; Edward Gerald Strutt; Sir Walter Morley Fletcher; Sir Horace Darwin; Prof. William Henry Bragg; George Macaulay Trevelyan; Prof. William George Stewart Adams; Dr. Hugh Kerr Anderson; and Prof. Arthur Schuster.

security against economic hazards and in thus freeing the teacher to concentrate in peace of mind upon his appointed task.

The Corporation, the Administration, and the Faculty are partners in the management of the University. The full co-operation of all concerned is necessary to success. With such coöperation the evils of the present situation may be overcome. The trust is great, and the responsibility of all those charged with the management of the University must be measured accordingly. The progress of the profession of learning and thus of learning itself in America depends largely upon the salary policy which this and other universities may adopt. The conclusion to which every element in this investigation leads is that in order to obtain men of ability the University must pay the price which ability now commands. The relation of wage level to quality of personnel, which holds in other callings, is equally effective for the profession of learning. The University will get the quality that it pays for.

APPENDIX A

(Relating to Chapter II)

QUESTIONNAIRE ON THE ACADEMIC STANDARD OF LIVING

Please fill out as well as you can for a single, recent, typical year. Leave blank what you cannot answer with reasonable precision. Return to chairman of the committee in the enclosed stamped envelope. Do not sign.

Rank..... Age..... Married or single.....

Children: number..... Ages.... Number of other dependents.....
wholly supported.....
partially supported.....

Income: regular salary.....

supplementary earnings: { extra teaching.....
royalties.....
fees and other earnings.....

earnings of wife.....

earnings of children.....

income from property (rent, interest, and dividends) of self and wife..

gifts received.....

other income.....

Total income.....

Sum paid for shelter annually: { rent, include water and repairs.....
charges on owned home (but do not include
charge for mortgage or interest).....
sale value of house and lot.....

Automobile: price paid..... Name of make and model.....

Year of manufacture..... Average yearly mileage.....

Domestic servants: { regularly employed: number..... cost per year.....
occasionally employed, cost per year.....

Expenses for education of children.....

Amount spent for travel.....

How many weeks vacation did you take during the year?.....

Amount of annual surplus or deficit.....

If surplus, how used?.....

If deficit, how met?.....

Additional information on health expenditure, also secretarial service, books, and other professional expenses. Write on the back of this sheet. Give a description of the mode of living which your total expenditure provides.

ECONOMIC LEVELS OF 54 GROUPS

(The data from the returns are here arranged in fifty-four groups, each of which contains cases where the economic and family conditions are closely similar. The figures at the head of each group represent the total annual income.)

I. *Economic Group* \$1600-\$2100

Seven Instructors, ages 32-36, unmarried.

<i>Salaries</i>	\$1,000, \$1,200, \$1,200, \$1,500 (with main- tenance in each case estimated at \$600), \$1,500, \$1,600, \$1,600
<i>Other Income</i>	None (4), \$50, \$400, \$500
<i>Travel</i>	None (4), \$50, \$100, \$500
<i>Clubs and associations</i>	None (2), \$6, \$11, \$18, \$51, \$58
<i>Insurance</i>	None (2), \$87, \$98, \$117, \$140, \$165
<i>Savings and investments</i>	None (5), \$100, \$500

Vacation: none, 2, 3, 4, 4, 4, 15 weeks. Four have board and lodging at the hospital. One used surplus for travel and education; another to pay off indebtedness. Another was "unable to afford travel." One states: "Present salary gives no opportunity for outside social or research activities."

(Serial Nos. A-1, 2, 3, 4, 5, 70, 74.)

Faculty Incomes and Living Costs

II. *Economic Group \$1700-\$2500*

Six Instructors, ages 25-33, married with no children.

<i>Salary</i>	\$1,600, \$1,800, \$1,800, \$2,000, \$2,200 \$2,300
<i>Supplementary earnings</i>	None, \$80, \$200, \$200, \$500, \$500
<i>Income from private property</i>	None (4), \$130, \$300 (gift)
<i>Rent</i>	\$480, \$480, \$480, \$600, \$720, \$750
<i>Service</i>	\$10
<i>Travel</i>	None (2), \$25, \$100, \$150, \$250
<i>Doctors and dentists</i>	\$25, \$60, \$75
<i>Clubs and associations</i>	None, \$5, \$10, \$21, \$22, \$23
<i>Books</i>	\$50
<i>Insurance</i>	None (2), \$19, \$70, \$105, \$128
<i>Savings and investments</i>	None (3), \$100, \$200, \$200

Vacation: 1, 2, 3, 4, 6, 8 weeks. Wife contributes to family income in one case by supplementary earnings. For the most part there is no domestic service of any kind. One has a cheap car. One owes \$850 secured on insurance. One lives in a two-room apartment, carries practically no insurance, but paid off notes of \$260. "This is life on a simple level; we cannot increase the family." Another says: "We skimp at times, are always somewhat concerned over money matters even for essentials, and in event of prolonged sickness should be wrecked." Another writes: "The scale of living is a moderate one which provides for necessities but not for luxuries, including children. Extraordinary expenses, such as sickness, are usually met by aid from parents."

(*Serial Nos. B-1, 2, 3, 4, 5, 53.*)

III. *Economic Group \$1800-\$2200*

Nine Instructors, ages 23-34, unmarried.

<i>Salaries</i>	\$1,500, \$1,500, \$1,500 (two at \$1,500 receive maintenance in addition, which may be estimated at \$600), \$1,600, \$1,800, \$1,800, \$1,800, \$1,800, \$2,100
<i>Supplementary earnings</i>	None (7), \$200, \$400
<i>Gifts</i>	None (7), \$100, \$150
<i>Rent</i>	\$170, \$250, \$520, \$720, \$800
<i>Travel</i>	\$50, \$100, \$100, \$100, \$600, \$700
<i>Doctors and dentists</i>	\$45, \$50, \$150, \$600
<i>Books</i>	\$30, \$50, \$80
<i>Clubs and associations</i>	\$10, \$10, \$10, \$12, \$13, \$13, \$73

<i>Insurance</i>	\$80, \$120, \$130, \$140, \$160
<i>Savings and investments</i>	None (5), \$150, \$250, \$300, \$400
<i>Deficit</i>	\$50

Vacation: not stated, none, 4, 4, 4, 8, 8, 9, 15 weeks. Three have cheap cars. Four have no surplus or deficit. Two have college rooms as proctors.

(*Serial Nos.* A-6, 8, 9, 10, 11, 13, 14, 15, 75.)

IV. *Economic Group \$2000-\$2600*

Three Instructors, ages 26-32, with wife and two children under 8 years.

<i>Salaries</i>	\$2,000, \$2,100, \$2,500
<i>Supplementary earnings</i>	None (3)
<i>Income from</i> <i>private property</i>	None (2), \$82 (partly gifts)
<i>Rent</i>	\$540, \$600, \$780
<i>Service</i>	None, \$10, \$40
<i>Travel</i>	\$25, \$40, \$75
<i>Doctors and dentists</i>	\$45, \$200, \$200
<i>Clubs and associations</i>	\$18, \$22, \$23
<i>Books</i>	\$20, \$30, \$30
<i>Insurance</i>	None, \$42, \$90
<i>Savings and investments</i>	\$30, \$490
<i>Deficit</i>	\$500 (met by borrowing)

Vacation: 2, 2, 7 weeks. One has a moderate priced car, another a second-hand Ford. Savings in one case were for "a definite purpose." One writes: "Wife does all the cooking, including the baking of bread, and utilizes every last scrap of food. Clothing for family \$100."

(*Serial Nos.* D-35, 36, 38.)

V. *Economic Group \$2100-\$2500*

Four Instructors, ages 26-36, with wife and baby or young child.

<i>Salaries</i>	\$1,500, \$1,800, \$2,100, \$2,100
<i>Supplementary earnings</i>	\$75, \$300, \$350, \$490
<i>Income from</i> <i>private property</i>	None, \$55 (partly gifts), \$110 (partly gifts), \$300 (gift)

<i>Rent</i>	\$600, \$600, \$732, \$810
<i>Service</i>	None (2), \$50, \$150
<i>Travel</i>	None (2), \$30, \$350
<i>Clubs and associations</i>	None, \$5, \$19, \$30
<i>Doctors and dentists</i>	\$140
<i>Books</i>	\$65
<i>Insurance</i>	\$30, \$100, \$141, \$210
<i>Savings and investments</i>	None (4)
<i>Deficit</i>	\$300

Vacation: none, 4, 4, 5 weeks. In one case the wife contributes to the family income by her earnings. Rent in one case reduced by subletting a room. One has a cheap car, the others have none. Deficits in one case covered by borrowing; in another a deficit of \$300 was avoided by summer work. One man states: "It is impossible to have any regular domestic help, which makes it a steady hard job for the woman of the house, who has to do the cooking, cleaning, washing of the baby's things, sewing and shopping." The lack of domestic service makes it necessary for the men to take a hand in housework. One describes his mode of living as "a bare subsistence level." Another says that because of "the ridiculous salaries paid by universities, I am leaving the field of teaching at the end of this school year." The best possible on this level is to "break about even by living in a narrow way."

(*Serial Nos.* C-1, 2, 3, 4.)

VI. *Economic Group \$2300-\$2500*

Twelve Instructors and Assistant Professors, ages 24-37,
unmarried.

<i>Salaries</i>	\$1,500, \$1,500, \$1,800, \$2,000, \$2,100, \$2,100, \$2,100, \$2,300, \$2,500, \$2,500, \$2,500, \$2,500
<i>Supplementary earnings</i>	None (8), \$200, \$270, \$300, \$500
<i>Income from</i> <i>private property</i>	None (7), \$200, \$500 (gift), \$550 (partly gift), \$800, \$1,000 (partly gift)
<i>Rent</i>	\$150, \$225, \$300, \$336, \$350, \$380, \$400, \$450, \$480. (One has maintenance at the hospital; two are proctors.)
<i>Service</i>	\$80
<i>Travel</i>	\$100, \$150, \$200, \$400, \$600, \$800, \$1,000
<i>Clubs and associations</i>	None (2), \$13, \$16, \$19, \$20, \$20, \$20, \$33, \$50, \$85, \$209
<i>Doctors and dentists</i>	\$45, \$100
<i>Books</i>	\$80, \$100

<i>Insurance</i>	None (5), \$20, \$23, \$39, \$150, \$295, \$400, \$430
<i>Savings and investments</i>	None (2), \$100, \$300, \$300, \$400, \$500, \$500, \$600, \$785, \$800, \$850

Vacation: none, 2, 3, 4, 4, 4, 4, 6, 12, 12, 13 weeks. Two contribute to the support of relatives. Three used savings to pay debts incurred for education and one for study abroad.

(*Serial Nos.* A-16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 60, 69.)

VII. *Economic Group \$2700-\$3000*

Seven Instructors and Assistant Professors, ages 23-34,
married with no children.

<i>Salaries</i>	\$1,800, \$2,400, \$2,500, \$2,500, \$2,500, \$2,500, \$2,850
<i>Supplementary earnings</i>	None (3), \$100, \$425, \$500, \$1,000
<i>Income from private property</i>	None (2), \$50, \$100, \$200 (gift), \$425, amount not stated.
<i>Rent</i>	\$600, \$600, \$600, \$800, \$840, \$840, \$1,200
<i>Service</i>	\$75, \$100, \$200
<i>Travel</i>	\$50, \$200, \$300
<i>Doctors and dentists</i>	\$75, \$150
<i>Books</i>	\$200
<i>Clubs and associations</i>	None, \$7, \$13, \$15, \$30, \$30, \$33
<i>Insurance</i>	None, \$25, \$38, \$155, \$240, \$280, \$300
<i>Savings and investments</i>	None (5), \$600, \$600
<i>Deficit</i>	\$100, \$250

Vacation: none, not stated, 1, 1, 2, 3, 4 weeks. One man has a cheap car and two others have medium priced cars. One entirely supports a dependent. In two cases a source of additional income is furnished by the earnings of the wife. One paid \$780 on interest and principal of a debt. Deficit in one case met by sale of securities. In one case the wife has had an operation not yet paid for. One lives in "third floor apartment; little money available for books, concerts or other entertainment." Another states: "Theatres, concerts, etc., almost entirely excluded."

(*Serial Nos.* B-6, 7, 8, 9, 16, 42, 51.)

Faculty Incomes and Living Costs

VIII. *Economic Group \$2800*

Four Instructors, ages 28-34, with wife and baby or young child.

<i>Salaries</i>	\$2,500, \$2,500, \$2,500, \$2,750
<i>Supplementary earnings</i> . .	None (2), \$190, \$345
<i>Income from private property</i> . . .	None, \$100 (gift), \$120 (gift), \$300
<i>Rent</i>	\$550, \$600, \$660, \$750
<i>Service</i>	None (2), \$150, \$600
<i>Travel</i>	None, \$50, \$50, \$100
<i>Clubs and associations</i> . . .	\$8, \$11, \$23, \$25
<i>Doctors and dentists</i> . . .	\$100, \$400
<i>Books</i>	\$60
<i>Secretarial work</i>	\$60
<i>Insurance</i>	\$110, \$125, \$164, \$324
<i>Neither savings nor deficit.</i>	

Vacation: not stated, 2, 4, 7 weeks. Wife contributes by earnings to the family income in one case. Two have cheap cars. One says he lives in a flat in the "wrong" end of town. Another states that "extraordinary items have had to be met by irregular work during the summer and in frequent special jobs."

(Serial Nos. C-5, 6, 7, 8.)

IX. *Economic Group \$2800-\$3000*

Eleven Instructors and Assistant Professors, ages 26-51, unmarried.

<i>Salaries</i>	\$1,800, \$2,000, \$2,300, \$2,500, \$2,500, \$2,500, \$2,750, \$2,800, \$3,000, \$3,000, \$3,000
<i>Supplementary earnings</i> . .	None (7), \$50, \$380, \$600, \$700
<i>Income from private property</i> . . .	None (5), \$100, \$200, \$400, \$500, \$600, \$1,000
<i>Rent</i>	\$25, \$100, \$300, \$600, \$800, \$840, \$960, \$960
<i>Service</i>	\$60, \$250
<i>Travel</i>	\$150, \$200, \$250, \$250, \$300, \$1,000
<i>Doctors and dentists</i> . . .	\$10, \$50
<i>Clubs and associations</i> . . .	\$6, \$6, \$14, \$15, \$20, \$32, \$35, \$36, \$50, \$70, \$120
<i>Books</i>	\$30, \$200

<i>Insurance</i>	\$68, \$200, \$277, \$280, \$445
<i>Savings and investments</i>	None (4), \$200, \$290, \$292, \$700, \$790, \$1,000, \$1,000
<i>Deficit</i>	\$100

Vacation: 2, 2, 3, 4, 4, 5, 5, 6, 7, 8, 8 weeks. Four have dependent relatives wholly to support. Three have cheap or moderate priced cars. One lives "comfortably but with little margin for unusual expenses." Another is "barely getting by with no funds to meet an emergency," while another "lives comfortably."

(*Serial Nos.* A-26, 27, 28, 29, 30, 31, 32, 33, 34, 61, 66.)

X. *Economic Group \$3000-\$3250*

Seven Instructors and Assistant Professors, ages 27-31,
with wife and baby or young child.

<i>Salaries</i>	\$2,500, \$2,500, \$2,500, \$3,000, \$3,000, \$3,000 \$3,000
<i>Supplementary earnings</i>	\$150, \$187, \$200, \$250, \$500, \$500, \$600
<i>Income from</i> <i>private property</i>	None (3), \$40, \$50, \$100 (gift), \$120
<i>Rent</i>	\$660, \$720, \$720, \$720, \$720, \$720, \$780
<i>Service</i>	None (2), \$5, \$120, \$175, \$225, \$250
<i>Travel</i>	None (4), \$75, \$100, \$150
<i>Doctors and dentists</i>	None (2), \$10, \$15, \$18, \$39, \$40
<i>Insurance</i>	None, \$80, \$140, \$225, \$247, \$255, \$335
<i>Savings and investments</i>	None (4), \$60, \$300, \$300
<i>Deficit</i>	\$400, \$500

Vacation: none (2), 2, 4, 4, 4 weeks. In one case income is augmented by wife's earnings. One has a cheap car. Another generally breaks even, but must sometimes dip into the principal of a small patrimony or else raise money on life insurance, to meet unusual expenses such as childbirth. One says: "I suspect that the clothes of myself and wife are a minor departmental scandal." He has "not bought a book for a year." Another says: "My great deprivation is that I cannot have books of my own." Another: "Books, theatres, and travel are impossible. The most difficult problem is the obtaining of supplementary sources of income. On the positive side, it is doubtless true that our scale of living is somewhat superior to the average for the general population." "Our one extravagance in the field of amusement," writes another, "is a season football ticket."

(*Serial Nos.* C-9, 10, 11, 12, 13, 21, 47.)

Faculty Incomes and Living Costs

XI. *Economic Group \$3000-\$3500*

Six Instructors and Assistant Professors, ages 27-37, with wife and two children (an infant and a young child).

<i>Salaries</i>	\$2,100, \$2,500, \$2,500, \$2,500, \$3,000, \$3,000
<i>Supplementary earnings</i> . .	None, \$250, \$500, \$500, \$550, \$800
<i>Income from private property</i> . . .	None (4), \$200, \$1,100 (gift)
<i>Rent</i>	\$400, \$540, \$540, \$660, \$800, \$820
<i>Service</i>	None (2), \$10, \$20, \$100, \$360
<i>Education of children</i> . .	None (5), \$250
<i>Travel</i>	None (4), \$200, \$500
<i>Clubs and associations</i> . .	None, \$5, \$11, \$21, \$25, \$70
<i>Books</i>	\$50
<i>Insurance</i>	\$37, \$135, \$215, \$220, \$310, \$354
<i>Savings and investments</i> .	None (4), \$100, \$200

Vacation: none (3), 1, 3, 4 weeks. Wife contributes to family income by supplementary earnings in one case. Two bear part of the support of a dependent; one wholly supports a dependent. Two have medium priced cars and three have cheap cars. One puts all spare money (about \$50) into books. "Expenses for birth of children amounted in each case to at least \$400." Another states: "We spend on clothes the minimum of decency. . . . Having to earn money throughout the summer prevents research or study." One describes his mode of living as "quite meagre." Another: "Must use what we have to the utmost limit." Another: "Just enough to squeeze through by rigid economy." Still another: "Too little margin for books, music, recreation, household help and equipment."

(*Serial Nos.* D-39, 40, 41, 42, 50, 55.)

XII. *Economic Group \$3100-\$3350*

Four Instructors and Assistant Professors, ages 26-31, married with no children.

<i>Salaries</i>	\$2,500, \$2,500, \$2,500, \$3,000
<i>Supplementary earnings</i> . .	\$100, \$130, \$600, \$600
<i>Income from private property</i> . . .	None (2), \$250, \$500

Appendix A

III

<i>Rent</i>	\$420, \$660, \$720, \$1,080
<i>Service</i>	\$50, \$120
<i>Travel</i>	\$85, \$200, \$250
<i>Clubs and associations</i>	\$20, \$45, \$130
<i>Insurance</i>	\$56, \$125, \$130, \$362
<i>Savings and investments</i>	None, \$250, \$350, \$450

Vacation: 2, 4, 4, 15 weeks. One has a medium priced car ten years old. One "breaks even." From another: "We buy medium priced clothes and make them last as long as possible. Washing and ironing done at home, with occasional help. No servants."

(*Serial Nos.* B-10, 11, 12, 43.)

XIII. *Economic Group* \$3200-\$3500

Eight Instructors and Assistant Professors, ages 28-39,
unmarried.

<i>Salaries</i>	\$1,600, \$2,500, \$2,500, \$2,900, \$3,000, \$3,000, \$3,000, \$3,000
<i>Supplementary earnings</i>	None (3), \$200, \$250, \$300, \$700, \$900
<i>Income from</i> <i>private property</i>	None, \$100, \$100, \$180, \$250, \$275, \$300 (gift), \$1,800
<i>Rent</i>	\$275, \$500, \$600, \$710, \$900 (Three are proctors)
<i>Service</i>	\$50, \$300
<i>Travel</i>	\$200, \$300, \$600, \$800
<i>Doctors and dentists</i>	\$11, \$185, \$200
<i>Clubs and associations</i>	None, \$11, \$19, \$20, \$26, \$37, \$50, \$65
<i>Books and</i> <i>secretarial service</i>	\$90
<i>Insurance</i>	None (2), \$72, \$114, \$115, \$145, \$220, \$252
<i>Savings and investments</i>	None, \$200, \$300, \$360, \$360, \$700, \$1,500, \$1,500

Vacation: 2, 3, 4, 4, 5, 6, 8, 9 weeks. Two have cheap cars, one a medium priced car. They generally describe their condition as "comfortable without luxuries," and "easy financially." Two state almost in the same words: "Reasonable comfort, but not enough to get married on."

(*Serial Nos.* A-35, 36, 37, 38, 39, 62, 63, 72.)

Faculty Incomes and Living Costs

XIV. *Economic Group* \$3500-\$3750

Three Instructors and Assistant Professors, ages 31-39,
with wife and baby or young child.

<i>Salaries</i>	\$2,750, \$3,000, \$3,000
<i>Supplementary earnings</i> . .	None, \$500, \$500
<i>Income from</i>	
<i>private property</i>	None (2), \$1,000 (gift)
<i>Rent</i>	\$660, \$720, \$840
<i>Service</i>	None, \$150, \$150
<i>Travel</i>	None (2), \$100
<i>Clubs and associations</i> . .	None, \$22, \$45
<i>Insurance</i>	\$208, \$290, \$442
<i>Neither savings nor deficit.</i>	

Vacation: none, 4, 4 weeks. One entirely supports a dependent. One has a medium priced car (a gift). Hospital and nursing charges at birth of child are given in one instance as \$350. One lives in a five-room flat; the others gave no information. In regard to their mode of life, one writes: "It is unfortunately essential to keep up appearances."

(Serial Nos. C-14, 15, 16.)

XV. *Economic Group* \$3500-\$3800

Five Instructors and Assistant Professors, ages 25-33,
married with no children.

<i>Salaries</i>	\$2,100, \$2,100, \$2,500, \$2,500, \$3,000
<i>Supplementary earnings</i> . .	None, \$15, \$300, \$1,000, \$1,500
<i>Income from</i>	
<i>private property</i>	None (2), \$100 (gift), \$1,300 (partly gift) \$1,500 (gift)
<i>Rent</i>	\$660, \$660, \$660, \$790, \$870
<i>Service</i>	None, \$30, \$35, \$100, \$150
<i>Travel</i>	None (2), \$96, \$150, \$250
<i>Doctors and dentists</i> . .	\$63
<i>Clubs and associations</i> . .	\$10, \$20, \$40, \$60, \$85
<i>Insurance</i>	None, \$135, \$150, \$192, \$225
<i>Savings and investments</i> . .	None (3), \$550, \$800
<i>Deficit</i>	\$400

Vacation: 4, 4, 6, 10, 12 weeks. Wife contributes to supplementary earnings in one case. The deficit mentioned above was met by selling a bond. Two live in a three-room and one in a five-room apartment. One has a cheap car. The wives do all the housework except as they have some occasional service. One goes to New York two or three times annually for pleasure or to attend scientific meetings. Another spends \$75 for clothing, his wife \$135; amusements \$50. Another states: "Mode of living plain and comfortable; no money for amusements."

(*Serial Nos.* B-13, 14, 15, 44, 47.)

XVI. *Economic Group* \$3600-\$4200

Ten Instructors, Assistant and Associate Professors,
ages 27-40, unmarried.

<i>Salaries</i>	\$1,680 and maintenance, \$1,800, \$2,500, \$2,500, \$3,000, \$3,000, \$3,000, \$3,500, \$4,000, \$4,000
<i>Supplementary earnings</i>	None (4), \$50, \$200, \$400, \$600, \$600, \$1,500
<i>Income from private property</i>	None (4), \$100 (gift), \$150, \$250, \$1,500, \$2,200, \$2,500
<i>Rent</i>	\$200, \$300, \$390, \$450, \$450, \$500, \$624, \$700, \$1,000, amount not stated.
<i>Service</i>	\$30, \$70
<i>Travel</i>	\$200, \$250, \$500, \$600, \$1,000, \$2,000
<i>Doctors and dentists</i>	\$15, \$25, \$60, \$250
<i>Clubs and associations</i>	\$9, \$30, \$35, \$35, \$50, \$52, \$70, \$78, \$125, amount not stated.
<i>Books</i>	\$150, \$150, \$300
<i>Insurance</i>	None (2), \$40, \$50, \$75, \$75, \$182, \$248, \$340, \$565
<i>Savings and investments</i>	None (3), \$400, \$500, \$500, \$500, \$600, \$1,200, \$1,500

Vacation: 4, 4, 4, 4, 5, 6, 7, 8, 12, 16 weeks. Five contribute to the support of relatives. Five have medium priced cars. One writes: "Plays and concerts are indulged in frequently. A trip to Europe comes along occasionally. My general mode of living may be described as comfortable but not luxurious." Another says: "I live very comfortably and can and do waste money with impunity."

(*Serial Nos.* A-40, 41, 42, 43, 44, 45, 64, 68, 71, 76.)

Faculty Incomes and Living Costs

XVII. *Economic Group \$3700-\$4300*

Eight Instructors, Assistant and Associate Professors, ages 29-39, with wife and two children (in seven cases under 8 years, in the eighth case grown children).

<i>Salaries</i>	\$2,500, \$2,700, \$3,000, \$3,500, \$3,500, \$3,500, \$3,900, \$4,000
<i>Supplementary earnings</i>	None (2), \$50, \$200, \$300, \$300, \$800, \$1,430
<i>Income from private property</i>	None (5), \$48, \$1,000 (partly gift), \$1,700 (partly gift)
<i>Rent</i>	\$585, \$780, \$800, \$850, \$930
<i>Owned homes worth</i>	\$8,500, \$11,000, \$11,000
<i>Service</i>	None (4), \$250, \$250, \$262, \$1,130
<i>Travel</i>	None (4), \$100, \$200, \$300, \$300
<i>Doctors and dentists</i>	\$200, \$500, \$1,000
<i>Clubs and associations</i>	None (2), \$10, \$19, \$20, \$25, \$55, \$55
<i>Insurance</i>	\$42, \$150, \$200, \$241, \$350, \$400, \$400, \$550
<i>Savings and investments</i>	None (4), \$250, \$400, \$450, \$466

Vacation: none (3), 2, 2, 4, 4, 6 weeks. One has a dependent whom he entirely supports. Two have cheap cars, one a medium priced car. Savings in one case were invested for the purchase of a home. One is "just about able to break even"; he has no domestic help other than someone occasionally in the evening to look after the children. Another says: "At times self-denial must be practiced to the point of being painful." One states that during the past year hospital and doctor bills of \$500 necessitated borrowing on life insurance policies. Another reports "no normal deficit, but in the past year health expenditures totalling \$1,000 involved a deficit met out of sale of investments." Another has been paying off a deficit of \$2,500 that has accumulated over a period of years owing chiefly to medical expenses.

(Serial Nos. D-1, 2, 3, 43, 44, 45, 46, 51.)

XVIII. *Economic Group \$4000-\$4100*

Four Assistant Professors, ages 31-43, with wife and baby or young child.

<i>Salaries</i>	\$2,000, \$3,000, \$4,000, \$4,000
<i>Supplementary earnings</i>	None, \$80, \$500, \$2,000
<i>Income from private property</i>	None (3), \$500

<i>Rent</i>	\$600, \$780, \$900, \$1,080
<i>Service</i>	None, \$160, \$200, \$550
<i>Travel</i>	None, \$250, \$300, \$500
<i>Clubs and associations</i>	None, \$28, \$120, \$130
<i>Education of children</i>	None (3), \$115
<i>Insurance</i>	\$180, \$200, \$326, \$380
<i>Savings and investments</i>	None (3), \$350

Vacation: 1, 3, 3, 4 weeks. One used savings to pay previous deficit. Three "break even," but "require the utmost economy to prevent a deficit." Two have cheap cars. "A very modest living, with no money for travel and professional advancement (books, etc.)."

(*Serial Nos.* C-17, 18, 19, 20.)

XIX. *Economic Group \$4200-\$4600*

Five Assistant and Associate Professors, ages 35-47,
with wife and three children under 14 years.

<i>Salaries</i>	\$3,500 \$3,500, \$3,500, \$4,000, \$4,500
<i>Supplementary earnings</i>	None (2), \$500, \$550, \$600
<i>Income from</i> <i>private property</i>	None, \$50, \$80, \$600, \$720
<i>Rent</i>	\$800, \$900, \$1,340, amount not stated.
<i>Owned home worth</i>	\$15,000
<i>Service</i>	\$25, \$150, \$300, \$300, \$800
<i>Education of children</i>	None (4), \$80
<i>Travel</i>	None, \$50, \$100, \$150, \$500
<i>Clubs and associations</i>	\$20, \$25, \$30, \$85, \$128
<i>Insurance</i>	\$200, \$310, \$335, \$350, \$665
<i>Savings and investments</i>	None (2), \$200, \$300, \$300
<i>Deficit</i>	\$800

Vacation: none, 4, 6, 8, 8 weeks. One has a cheap car and three have medium priced cars. Deficit of \$800 met by drawing from principal of property to pay for childbirth, tonsil operations, and children's diseases. "We have necessary food, clothing and shelter, but do most of our own work, and principal of property is dwindling." Another shows no surplus or deficit. Another describes his life as "simple, careful living by budget, without opportunity to provide properly for the future."

(*Serial Nos.* E-1, 2, 3, 38, 44.)

Faculty Incomes and Living Costs

XX. *Economic Group \$4300-\$4650*

Six Instructors, Assistant and Associate Professors,
ages 26-46, married with no children.

<i>Salaries</i>	\$2,500	\$3,000	\$3,000	\$3,000	\$3,000	\$4,000
<i>Supplementary earnings</i>	\$300	\$300	\$850	\$1,225	\$1,410	\$1,820
<i>Income from</i>						
<i>private property</i>	None (2),	\$175,	\$350	(partly gift),	\$500,	
		\$1,200	(gift)			
<i>Rent</i>	\$720,	\$780,	\$816,	\$840,	\$900,	\$1,200
<i>Service</i>	None (2),	\$75,	\$100,	\$250,	\$250	
<i>Travel</i>	None (2),	\$100,	\$100,	\$200,	\$300	
<i>Clubs and associations</i>	None,	\$15,	\$40,	\$42,	\$62,	\$115
<i>Insurance</i>	None (2),	\$108,	\$200,	\$250,	\$275	
<i>Savings and investments</i>	None (4),	\$400,	\$500			

Vacation: 3, 4, 4, 6, 6, 8 weeks. Most of them work during the summer when work is available. Wife contributes earnings in three cases. Three have medium priced cars. Generally there is no domestic service or else occasional service only. One refers to his mode of living as "middle class." Another says: "Income adequate as long as both of us are working." One entirely supports a dependent, two partially support one or more dependents.

(Serial Nos. B-17, 18, 40, 41, 49, 52.)

XXI. *Economic Group \$4500-\$5400*

Four Instructors, Assistant and Associate Professors,
ages 26-44, unmarried.

<i>Salaries</i>	\$1,800,	\$2,100,	\$3,500,	\$5,000
<i>Supplementary earnings</i>	\$20,	\$200,	\$500,	\$3,200
<i>Income from</i>				
<i>private property</i>	\$100,	\$200,	\$1,030,	\$2,800
<i>Rent</i>	\$200,	\$780,	\$1,250	
<i>Owned home worth</i>	\$19,000	(owns half only)		
<i>Service</i>	\$540			
<i>Travel</i>	\$100,	\$400,	\$800,	\$1,500
<i>Books</i>	\$200,	\$300		
<i>Clubs and associations</i>	None,	\$9,	\$40,	\$80
<i>Insurance</i>	None,	\$295,	\$340,	\$695
<i>Savings and investments</i>	None,	\$400,	\$700,	\$2,000

Vacation: not stated, 4, 8, 10 weeks (latter on account of illness). One takes an occasional trip to Europe. Expenditures for books and magazines are mentioned in two cases as \$200 and \$300. Two report no lack of comforts but few luxuries.

(*Serial Nos.* A-46, 47, 49, 77.)

XXII. *Economic Group \$4550-\$5000*

Four Assistant and Associate Professors, ages 34-36, with wife and two children under 8 years.

<i>Salaries</i>	\$3,000, \$4,000, \$4,000, \$4,000
<i>Supplementary earnings</i>	\$250, \$800, \$850, \$1,000
<i>Income from</i>	
<i>private property</i>	None (2), \$300, \$800
<i>Rent</i>	\$900, \$1,000
<i>Owned homes worth</i>	\$11,000, \$12,000
<i>Service</i>	\$200, \$250, \$312, \$500
<i>Education of children</i>	None (3), \$50
<i>Travel</i>	None, \$100, \$200, \$250
<i>Clubs and associations</i>	\$50, \$60, \$95, \$100
<i>Doctors and dentists</i>	\$75
<i>Insurance</i>	\$181, \$343, \$350, \$485
<i>Savings and investments</i>	None (4)
<i>Deficit</i>	\$180, \$250, amount not stated.

Vacation: 3, 3, 4, 6 weeks. One partially supports a dependent, another partially supports two. Wife contributes to supplementary earnings in one case. Three have medium priced cars. Deficit in one case is met by drawing on capital. Another says: "By constantly living over my income the family lives in fair comfort. Sickness quickly wrecks the budget." Another: "Hand to mouth living." Another: "Cannot afford more than \$25 for books; can attend no professional gatherings, unless close at hand. Cannot go to the theatre except in the gallery. Have never sat in the orchestra circle at Shubert's. Clothing: one new suit a year, one pair of shoes; for wife about \$10 a month. Wife does laundry with aid of washing machine. Live up to last penny of our income." Another says: "When I think of the coming needs of a growing family and the education of two children, I wonder what my financial condition will be at the end of my useful service."

(*Serial Nos.* D-4, 5, 6, 47.)

Faculty Incomes and Living Costs

XXIII. *Economic Group \$5000-\$5100*

Five Instructors and Assistant Professors, ages 29-36,
married with no children.

<i>Salaries</i>	\$2,500, \$3,000, \$3,500, \$4,500, \$4,500
<i>Supplementary earnings</i>	None (2), \$600, \$1,500, \$1,500
<i>Income from</i>	
<i>private property</i>	\$190, \$600, \$700, \$1,000 (partly gift), \$1,400
<i>Rent</i>	\$720, \$960, \$1,080, \$1,200
<i>Owned home worth</i>	\$8,500
<i>Travel</i>	None, \$33, \$100, \$200, \$300
<i>Doctors and dentists</i>	\$300, \$400
<i>Books</i>	\$50
<i>Clubs and associations</i>	\$5, \$14, \$25, \$28, \$55
<i>Insurance</i>	\$150, \$240, \$396, \$400, \$700
<i>Savings and investments</i>	None, \$300, \$600, \$800, \$1,000

Vacation: 3, 4, 4, 5, 6 weeks. Wife contributes to supplementary earnings in one case. One has a cheap car, two have medium priced cars. Domestic service is either lacking or is occasional only. One lives in a four-room apartment in a pleasant section of the city and manages to "keep expenses down by going without maid and automobile, so as to save \$800." Another states: "We live in a small apartment, spend as little as possible for clothing, entertainment, pleasure or travel." Another writes: "Reasonable economy is necessary and certain desirable things, such as foreign travel, must be postponed."

(Serial Nos. B-19, 20, 21, 48, 54.)

XXIV. *Economic Group \$5000-\$5500*

Six Instructors, Assistant, Associate and Full Professors,
ages 32-65, with wife and one child (one an infant, two
adults, and the others of school age).

<i>Salaries</i>	\$2,500, \$3,000, \$3,500, \$4,500, \$4,500, \$5,000
<i>Supplementary earnings</i>	None (2), \$100, \$500, \$800, \$2,300
<i>Income from</i>	
<i>private property</i>	None (2), \$200, \$1,000, \$1,665, \$3,000 (partly gift)

<i>Rent</i>	\$1,000, \$1,000, \$1,340, \$1,500
<i>Owned homes worth</i> . . .	\$15,000, \$18,000
<i>Service</i>	None, \$120, \$150, \$292, \$600, \$800
<i>Education of children</i> . .	None (3), \$100, \$150, \$1,400
<i>Travel</i>	None (2), \$150, \$160, \$450, \$750
<i>Doctors and dentists</i> . . .	\$318
<i>Clubs and associations</i> . .	\$65, \$65, \$72, \$85, \$100, \$150
<i>Insurance</i>	\$50, \$190, \$212, \$240, \$375, \$765
<i>Savings and investments</i> .	None (3), \$500, \$500, \$600

Vacation: "regular" (2), 1, 4, 6, 8 weeks. Wife contributes to supplementary earnings in one case. No savings in three cases; another saves only the earnings of his wife. One man partially supports a dependent. Three have low priced cars, one a moderate priced car, and one an expensive car. One says: "If I were compelled to depend upon my college salary alone I could not remain at Yale." Another writes: "We live in a pleasant single house with yard. My wife does the cooking and most of the housework the year round. We dress as cheaply as possible. Can spend a little on books."

(Serial Nos. C-22, 23, 24, 44, 48, 49.)

XXV. *Economic Group \$5100-\$5700*

Four Assistant and Associate Professors, ages 32-45, with wife and three children under 14 years.

<i>Salaries</i>	\$3,500, \$3,500, \$4,000, \$4,500
<i>Supplementary earnings</i> .	\$705, \$1,200, \$1,350, \$1,750
<i>Income from</i> <i>private property</i>	None, \$250, \$275, \$570
<i>Rent</i>	\$840, \$1,000, \$1,000
<i>Owned home worth</i> . . .	\$12,000
<i>Service</i>	None, \$75, \$175, \$250
<i>Education of children</i> . .	None (3), \$1,500
<i>Travel</i>	None (3), \$75
<i>Clubs and associations</i> . .	None, \$30, \$110, \$113
<i>Doctors and dentists</i> . . .	\$100, \$150, \$300
<i>Insurance</i>	\$282, \$483, \$520, \$725
<i>Savings and investments</i> .	\$100, \$500, \$700, \$800

Vacation: none, 3, 4, 8 weeks. One partially supports a dependent. Two have medium priced cars. One has surplus of \$700, but can afford

no books. He says: "My mode of living is just like that of the man downstairs in the two-family house. He is manager of a gasoline filling station." Another says: "Mode of living modest, much more restricted than that of other professional men and of most business men." Another says: "Wife does not only the cooking but also laundry and most of the dressmaking, but has a helper for housework twice a week. Seldom go to theater or movies. Wife is very efficient, otherwise we could not get by." Another has neither surplus nor deficit this year, but for five years past has met deficits from profits on business transactions. He has secured outside the University a fund for secretarial service. Margin for books, health, and amusement small. Lives by the most rigid economy, carefully scrutinizing every expenditure.

(Serial Nos. E-5, 6, 7, 39.)

XXVI. *Economic Group \$5300-\$5600*

Five Instructors, Assistant and Full Professors, ages 33-45,
with wife and two children mostly of school age.

<i>Salaries</i>	\$3,500, \$4,000, \$4,000, \$4,000 \$5,000
<i>Supplementary earnings</i>	\$400, \$500, \$900, \$1,400, \$1,500
<i>Income from</i>	
<i>private property</i>	None (2), \$50, \$900, \$1,200
<i>Rent</i>	\$650, \$1,020, \$1,275
<i>Owned homes worth</i>	\$15,500, amount not stated
<i>Service</i>	None, \$150, \$250, \$360, \$380
<i>Education of children</i>	\$80, \$100, \$200, \$300, \$1,200
<i>Travel</i>	None, \$75, \$150, \$250
<i>Clubs and associations</i>	\$20, \$35, \$87, \$145, \$145
<i>Doctors and dentists</i>	\$40, \$200, \$200
<i>Insurance</i>	\$100, \$355, \$380, \$437, \$440
<i>Savings and investments</i>	None (3), \$25, \$900
<i>Deficit</i>	\$600 (met by gifts from relatives)

Vacation: 2, 3, 4, 6, 8 weeks. One has a cheap car, two have medium priced cars. One says: "By close scrutiny of all expenses and cutting out all but necessities, we just manage to make ends meet." Another: "Cannot carry enough life insurance for adequate protection of family. We live comfortably, but modestly, depriving ourselves of many desirable social activities."

(Serial Nos. D-7, 8, 9, 10, 57.)

XXVII. *Economic Group \$5400-\$6200*

Six Assistant, Associate and Full Professors, ages 26-50,
married with no children.

<i>Salaries</i>	\$4,000, \$4,500, \$4,500, \$5,000, \$5,400, \$5,500
<i>Supplementary earnings</i>	None (2), \$100, \$200, \$800, \$1,200
<i>Income from private property</i>	None (2), \$70, \$200, \$1,000, \$2,000
<i>Rent</i>	\$1,100, \$1,200, \$1,200, \$1,600
<i>Owned homes worth</i>	\$11,500, \$18,000
<i>Service</i>	None (3), \$650, \$850, \$855
<i>Travel</i>	None (2), \$150, \$200, \$250, \$400
<i>Clubs and associations</i>	None, \$22, \$35, \$80, \$115, \$145
<i>Books</i>	\$100
<i>Insurance</i>	None, \$250, \$370, \$400, \$514, \$550
<i>Savings and investments</i>	None (2), \$200, \$500, \$1,000, \$1,100

Vacation: none, 3, 3, 4, 6, 8 weeks. Wife contributes to supplementary earnings in one case. Two have medium priced cars, three have cars that cost less than \$1,000. Savings used for payment on mortgage in one case. One lives in a four-room apartment and "goes occasionally to the theater and movies." Another says: "A very simple mode of living is provided."

(Serial Nos. B-22, 23, 24, 25, 26, 50.)

XXVIII. *Economic Group \$5500-\$6300*

Four Instructors and Assistant Professors, ages 25-55,
unmarried.

<i>Salaries</i>	\$2,000, \$2,100, \$4,500, \$5,500
<i>Supplementary earnings</i>	None (2), \$170, \$4,000
<i>Income from private property</i>	None, \$775, \$850, \$3,600
<i>Rent</i>	\$130, \$450
<i>Service</i>	\$225
<i>Travel</i>	\$500, \$1,400
<i>Clubs and associations</i>	\$50, \$60, \$70
<i>Books</i>	\$200
<i>Insurance</i>	\$175, \$400, \$925
<i>Savings and investments</i>	None (2), \$2,000, \$2,000

Faculty Incomes and Living Costs

Vacation: not stated, 6, 10, 14 weeks. One supports a dependent. One says: "As long as I remain unmarried I can live with great comfort. I seldom deny myself luxuries for financial reasons."

(*Serial Nos.* A-50, 51, 53, 78.)

XXIX. *Economic Group \$5700-\$6000*

Four Assistant and Associate Professors, ages 32-60, with wife and three children (in three cases of school age, and in one case of college age).

<i>Salaries</i>	\$3,200, \$4,500, \$4,500, \$6,000
<i>Supplementary earnings</i> . .	None (2), \$500, \$1,050
<i>Income from</i>	
<i>private property</i>	None, \$100, \$300, \$900
<i>Rent</i>	\$750, \$1,020, \$1,200
<i>Owned home worth</i>	\$10,000
<i>Service</i>	\$100, \$150, \$600, \$1,020
<i>Education of children</i> . . .	\$50, \$100, \$250, \$900
<i>Travel</i>	None, \$200, \$200, \$300
<i>Clubs and associations</i> . . .	\$15, \$37, \$89, \$200
<i>Insurance</i>	None, \$316, \$529, \$765
<i>Savings and investments</i> . .	None (2), \$150, \$600

Vacation: 1, 2, 3, 4 weeks. Two support dependents, one wholly, the other partially. One owns a medium priced car, three have cheap cars. In one case the education of children has prevented savings. In another, where savings are now being made, they are for the education of children when of college age. "Present salaries provide for a plain, but comfortable physical existence, but are entirely inadequate for the cultivation of professional and aesthetic interests."

(*Serial Nos.* D-11, 12, 13, 58.)

XXX. *Economic Group \$6000-\$6400*

Six Assistant, Associate and Full Professors, ages 37-50, with wife and three or four children each (one of these children is of college age, seven are of school age, the rest are under 5 years).

<i>Salaries</i>	\$4,000, \$4,500, \$4,750, \$5,000, \$5,000, \$6,000
<i>Supplementary earnings</i> . .	None (2), \$250, \$575, \$900, \$2,400
<i>Income from</i>	
<i>private property</i>	None, \$250 (gift), \$900, \$1,000 (gift), \$1,000, \$1,000

<i>Rent</i>	\$750, \$900, \$1,020
<i>Owned homes worth</i>	\$11,000, \$15,000, \$16,500
<i>Service</i>	\$100, \$175, \$200, \$500, \$1,060, \$1,790
<i>Education of children</i>	None, \$30, \$50, \$300, \$750, \$2,500
<i>Travel</i>	None (2), \$30, \$200, \$250, \$300
<i>Clubs and associations</i>	\$45, \$45, \$60, \$70, \$111, \$115
<i>Insurance</i>	None, \$70, \$250, \$255, \$300, \$450
<i>Savings and investments</i>	None (4), \$400, \$500

Vacation: not stated, 2, 2, 4, 4, 10 weeks. One has an expensive car (a gift), one a medium priced car, and three have cheap, mostly second-hand cars. One is "lucky on doctor's bills; average \$50; dentist's \$75." His wife does his secretarial work so far as time allows. An inheritance made purchase of home with mortgage possible. Savings impossible. Buys nothing except necessities but with care lives comfortably. Must turn his hand to every possible outside lucky penny to detriment of scholarly work. Another says: "Family blessed with good health, if not God help us." Doctor and dentist bills for family of five are not over \$150; new baby, however, costs \$500. Lives in an 11-room house on a good street, but cannot afford to leave New Haven in the summer. Wife has not been out of New Haven for more than two years. "When we attend theater we sit in rush seats of second gallery." Man has not had new suit for two years. "Wife is an unusually good manager, but family is living on a very insecure basis and can barely pay present insurance premium." Man picks up all the outside work possible, and works as painter, plumber, and carpenter at home. Another finds that "expenditures for necessities cut into education, travel, and savings." Another says: "Have taught nearly 20 years, more than 10 as professor. Have had no regular income, earned or unearned, except my salary. Failure to supplement salary from outside earnings partly due to lack of ready opportunity in my field, partly from choice. Have always gone on theory that I ought to be able to live on my salary and give my time and energy wholly to regular teaching and study. The theory was mistaken. Have succeeded in living on salary until now. Always under burden of debt. Intolerable accumulations reduced by pinching pennies still harder, by occasional extra earnings, by increases in salary (which have afforded relief for a time, but were soon offset by increasing family costs), and by borrowing against life insurance. Present status: liabilities about \$2,000; assets (aside from personal property and a good bit of time served toward a Carnegie pension, on the old basis) \$5,000, and a farmhouse bought for \$1,600 which might sell for twice that. Even if I were alone in the world this could not be considered a safe condition.

"In order to maintain approximate solvency, a gradual decline in standard of living has been necessary. The more we have given up the more we have had to. We live in half a double house, rented; no grounds,

insufficient room, inconvenient—no proper home. Laundress one day a week; sewing woman about once in two weeks. No other service. Public schools for children; almost no special advantages for them. Very inadequate professional expenditure; no secretarial assistance, scientific meetings only when close by, far too few books and periodicals. No automobile. Almost no hospitality. No amusements that cost anything significant. No travel except to and from summer home. Closest economy in food and clothing. Little left to jettison except the Graduates Club and our summer at the shore. Living expenses are so much higher here than there that to give up our annual outing would profit little.

"The eldest of my children is just coming to college age. I want to send them all. . . . That the situation needs relief hardly requires emphasis. It is cruelly hard on my wife, and has impaired my own efficiency greatly, through waste of time and energy worrying about debts, planning and scheming and helping with housework."

(Serial Nos. E-4, 8, 9, 10, 34, 40.)

XXXI. *Economic Group \$6000-\$7000*

Six Associate and Full Professors, ages 36-47, with wife
and one child under 12 years.

<i>Salaries</i>	\$4,500, \$5,000, \$5,000, \$5,000, \$6,000 \$6,000
<i>Supplementary earnings</i>	\$300, \$400, \$500, \$1,000, \$1,500, \$1,600
<i>Income from private property</i>	\$110, \$300, \$600, \$1,500
<i>Rent</i>	\$850, \$960, \$1,300, \$1,500
<i>Owned homes worth</i>	\$18,000, \$40,000
<i>Service</i>	\$50, \$100, \$300, \$550, \$900, \$1,175
<i>Education of child</i>	None (2), \$50, \$125, \$250, \$1,000
<i>Travel</i>	None (2), \$250, \$300, \$500, \$600
<i>Clubs and associations</i>	\$48, \$70, \$75, \$100, \$100, \$180
<i>Doctors and dentists</i>	\$1,000
<i>Secretarial service</i>	\$1,000
<i>Insurance</i>	None, \$60, \$225, \$385, \$392, \$684
<i>Savings and investments</i>	None (3), \$200, \$500, \$500
<i>Deficit</i>	\$1,000 (met by drawing on capital)

Vacation: none, 2, 4, 4, 6, 6 weeks. One entirely supports two dependents. One has an expensive car, one a medium priced, and two have cars that cost less than \$500. "Mode of life does not provide travel, books, music, art, theater, or clothes suitable to university faculty." Another

says: "Income adequate for a modest life provided that the wife is able to do the major portion of the housework and there are no protracted illnesses in the family." Another: "A comfortable living but with practically nothing left for savings, books, or cultural requirements." Another: "Modest living in a two-family house."

(*Serial Nos. C-25, 26, 27, 28, 29, 30.*)

XXXII. *Economic Group \$6500-\$6600*

Three Assistant and Associate Professors, ages 33-43,
with wife and two children under 7 years.

<i>Salaries</i>	\$3,000, \$3,500, \$5,000
<i>Supplementary earnings</i>	None, \$1,500, \$3,000
<i>Income from</i>	
<i>private property</i>	None, \$125 (partly gifts), \$3,500
<i>Rent</i>	\$900, \$1,080
<i>Owned home worth</i>	\$11,000
<i>Service</i>	\$250, \$800, \$970
<i>Education of children</i>	None (2), \$250
<i>Travel</i>	None (2), \$50
<i>Clubs and associations</i>	\$20, \$36, \$162
<i>Insurance</i>	\$350, \$434, \$733
<i>Deficit</i>	\$400
<i>Savings and investments</i>	None (2), amount not stated

Vacation: few days, 4, 4 weeks. One partially supports two dependents. One has a cheap car and the two others have medium priced cars; two of the cars were gifts. One had a deficit of \$400, due to illness, covered by borrowing on life insurance policy; in another case part of a surplus was expended for "one \$500 baby."

(*Serial Nos. D-14, 15, 55.*)

XXXIII. *Economic Group \$7000*

Four Assistant, Associate and Full Professors,
ages 29-61, unmarried.

<i>Salaries</i>	\$4,000, \$4,500, \$5,000, \$7,000
<i>Supplementary earnings</i>	None (3), \$2,000
<i>Income from</i>	
<i>private property</i>	None, \$500, \$1,900, \$3,000

<i>Rent</i>	\$900, \$1,020, \$1,380, \$1,440
<i>Service</i>	\$208, \$720, \$1,040
<i>Travel</i>	None, \$300, \$1,000, \$2,000
<i>Books and</i>	
<i>secretarial service</i>	\$140, \$1,000
<i>Clubs and associations</i> . . .	\$12, \$75, \$80, \$140
<i>Insurance</i>	None, \$28, \$235, \$320
<i>Savings and investments</i> . .	None, \$300, \$500, \$1,500

Vacation: none (2), 4, 12 weeks. One has a medium priced car, another a cheap car. One describes his life as "extremely comfortable as long as I remain single."

(Serial Nos. A-54, 55, 56, 67.)

XXXIV. *Economic Group \$7000-\$7500*

Four Assistant and Full Professors, ages 35-50, with wife and two children under 12 years.

<i>Salaries</i>	\$5,000, \$6,000, \$6,500, \$7,000
<i>Supplementary earnings</i> . .	\$500, \$500, \$700, \$1,000
<i>Income from</i>	
<i>private property</i>	None (2), \$400, \$1,700
<i>Rent</i>	\$700, \$750
<i>Owned homes worth</i> . . .	\$12,000, \$21,000
<i>Service</i>	\$40, \$550, \$750, \$970
<i>Education of children</i> . . .	\$100, \$150, \$500, \$600
<i>Travel</i>	None (2), \$300, \$1,500 (exceptional this year)
<i>Clubs and associations</i> . . .	None, \$25, \$40, \$120
<i>Doctors and dentists</i> . . .	\$300, \$2,000
<i>Insurance</i>	\$56, \$250, \$350, \$450
<i>Savings and investments</i> . .	None, \$400, \$900, \$1,000

Vacation: 1, 3, 4, 4 weeks. Two have medium priced cars. Surplus in one case is used for payment on mortgage. One says: "Heavy expenses on account of illness." Another: "Our one luxury is a summer home."

(Serial Nos. D-16, 17, 18, 56.)

XXXV. *Economic Group \$7000-\$7500*

Six Assistant and Full Professors, ages 34-56, with wife and three (in two cases four) children, the oldest of whom is of school or college age.

<i>Salaries</i>	\$3,000, \$3,000, \$4,500, \$5,200, \$6,000, \$7,250
<i>Supplementary earnings</i>	None (2), \$500, \$1,200, \$2,000, \$2,025
<i>Income from private property</i>	None (2), \$150 (gift), \$275, \$2,000, \$4,500 (gift)
<i>Rent</i>	\$1,500, amount not stated
<i>Owned homes worth</i>	\$10,000, \$12,000, \$15,000, \$20,000
<i>Service</i>	\$150, \$550, \$600, \$820, \$850, \$940
<i>Education of children</i>	None, \$250, \$250, \$500, \$1,500, \$2,000
<i>Travel</i>	None (2), \$60, \$100, \$500, \$550
<i>Clubs and associations</i>	\$9, \$15, \$35, \$50, \$55, \$103
<i>Doctors and dentists</i>	\$150, \$300, \$300
<i>Books and journals</i>	\$83
<i>Insurance</i>	None, \$125, \$140, \$250, \$280, \$392
<i>Savings and investments</i>	None (5), \$500 (devoted to paying off mortgage on house)
<i>Deficit</i>	\$1,200 (borrowed)

Vacation: none, 1, 1, 2, 3, 4 weeks. Two support one dependent each. Four have moderate priced cars. One has heavy expenses on account of illness. Wife contributes accessory earnings in one case. One owns small, comfortable home in good neighborhood; in order to educate children "must take on more outside work and borrow." Another lives in a small house, heavily mortgaged; clothes of the family are entirely homemade. Another says: "If gifts from parents were not continued I should have to leave Yale." Another has neither surplus nor deficit. Another says: "Mode of living extremely simple. Wife does cooking, washing and ironing. Entertainment limited to an occasional friend at a meal. Expenses of children are increasing at a much greater rate than salary. Am becoming pessimistic of improvement. Yale is an excellent place for an unmarried man or one with an independent income, but represents hardship for others. Necessity of continually seeking outside work interferes with research. Interference with research means slower promotion; slower promotion means more work outside to get a living."

(*Serial Nos.* E-11, 12, 13, 14, 36, 47.)

Faculty Incomes and Living Costs

XXXVI. *Economic Group \$7000-\$7600*

Three Assistant, Associate and Full Professors, ages 37-57,
married with no children.

<i>Salaries</i>	\$4,500, \$4,500, \$7,000
<i>Supplementary earnings</i> .	None (2), \$300
<i>Income from</i>	
<i>private property</i> . . .	\$600, \$2,500, \$2,750 (partly gift)
<i>Rent</i>	\$1,000, \$1,200
<i>Owned home worth</i> . .	\$20,000
<i>Service</i>	\$150, \$300, \$530
<i>Travel</i>	\$150, \$200, \$1,000 (necessary part of teaching)
<i>Clubs and associations</i> .	\$45, \$75, \$100
<i>Insurance</i>	\$65, \$360, \$400
<i>Savings</i>	\$500, \$800, \$2,000

Vacation: 4, 5, 6 weeks. All three have medium priced cars. One paid \$1,150 on mortgage and repairs. In one case the wife's efficient management "makes it possible to have extra money for luxuries." Another describes his mode of life as "slightly less comfortable than that of business friends of moderate ability."

(Serial Nos. B-27, 28, 29.)

XXXVII. *Economic Group \$7500-\$8500*

Six Instructors, Assistant and Full Professors, ages 27-63,
with wife and one child from under 1 to over 21 years.

<i>Salaries</i>	\$2,000, \$2,500, \$3,000, \$4,000, \$6,000, \$7,500
<i>Supplementary earnings</i> .	None (3), \$400, \$1,300, \$6,000
<i>Income from</i>	
<i>private property</i> . . .	\$300, \$500, \$1,300, \$2,600, \$4,500, \$5,500
<i>Rent</i>	\$1,000, \$1,000, \$1,250, \$2,600
<i>Owned homes worth</i> . .	\$15,000, \$40,000
<i>Service</i>	\$150, \$750, \$915, \$1,100, \$1,120, \$1,500
<i>Education of children</i> .	None (4), \$200, \$400
<i>Travel</i>	None, \$50, \$175, \$250, \$500, \$600
<i>Clubs and associations</i> .	\$65, \$65, \$100, \$100, \$104, \$190
<i>Doctors and dentists</i> . .	\$500, \$4,000

<i>Insurance</i>	None (2), \$150, \$275, \$400, \$700
<i>Savings and investments</i>	None (4), \$2,000, \$4,000
<i>Deficit</i>	\$1,900

Vacation: none (2), "regular," 1, 8, 14 weeks. In one case wife contributes supplementary earnings, in another the child does. One has a cheap car, two have medium priced cars. Four have no surplus; one has a deficit on account of medical expenses. All but one have regularly employed service. One states that he and his wife "live comfortably with no real unsatisfied wants."

(*Serial Nos.* C-31, 33, 34, 35, 45, 46.)

XXXVIII. *Economic Group \$7700-\$8000*

Four Professors, ages 50-53, with wife and two children
of school or college age.

<i>Salaries</i>	\$6,000, \$7,000, \$7,000, \$7,000
<i>Supplementary earnings</i>	\$300, \$750, \$1,000, \$1,300
<i>Income from</i> <i>private property</i>	None (2), \$500, \$500
<i>Owned homes worth</i>	\$15,000, \$20,000, \$25,000, \$40,000
<i>Service</i>	\$300, \$400, \$1,250, \$2,200
<i>Education of children</i>	None, \$550, \$1,500, \$1,600
<i>Travel</i>	\$200, \$200, \$350, \$500
<i>Clubs and associations</i>	\$90, \$115, \$155, \$165
<i>Doctors and dentists</i>	\$150
<i>Books and</i> <i>scientific material</i>	\$500
<i>Insurance</i>	\$216, \$400, \$420, \$543
<i>Savings and investments</i>	None (3), \$1,000

Vacation: none (3), 4 weeks. One supports a dependent wholly, another partially. Three have cars, two of which cost less than \$1,000. Three have neither surplus nor deficit. As to manner of living, one says: "We try to keep up a good appearance, but it is a hard struggle. My wife and I have to do too much menial work." Another comments: "Budget permits only simple living with close attention to all expenditures. Future educational expenses will require still greater economy."

(*Serial Nos.* D-19, 20, 52, 53.)

Faculty Incomes and Living Costs

XXXIX. *Economic Group \$8000-\$8400*

Three Assistant and Full Professors, ages 36-53, with wife
and three or four children ranging up to college age.

<i>Salaries</i>	\$3,000, \$5,500, \$7,000
<i>Supplementary earnings</i> . .	\$880, \$1,850, \$1,860
<i>Income from</i>	
<i>private property</i>	\$190, \$580, \$3,450 (partly gift)
<i>Rent</i>	\$910, \$1,600
<i>Owned home worth</i>	\$19,000
<i>Service</i>	\$345, \$1,000, \$1,750
<i>Education of children</i> . . .	\$300, \$500, \$3,000
<i>Travel</i>	None, \$100, \$295
<i>Clubs and associations</i> . . .	\$50, \$100, \$254
<i>Doctors and dentists</i>	\$2,000
<i>Insurance</i>	None, \$120, \$535
<i>Savings and investments</i> . .	None, \$200, \$700

Vacation: none, 2, 9 weeks. One partially supports a dependent, another entirely supports two. Wife contributes supplementary earnings in one case; in another the children also contribute. Two have no car; one has a cheap car. One has had heavy expenses for illness, the others but little expense on this account. One regrets "the serious interference with professional leisure and study, and the physical hardship which the wife has had to undergo." Another calls attention to the fact that after 30 years at Yale and living with utmost economy, he has been able to save virtually nothing except some life insurance.

(Serial Nos. E-15, 16, 17.)

XL. *Economic Group \$8200-\$9000*

Three Associate and Full Professors, ages 44-57, married
with no children.

<i>Salaries</i>	\$4,500, \$7,000, \$7,000
<i>Supplementary earnings</i> . .	None, \$35, \$1,000
<i>Income from</i>	
<i>private property</i>	\$200, \$2,000, \$4,400 (partly gift)
<i>Owned homes worth</i>	\$16,000, \$25,000, \$30,000
<i>Service</i>	\$850, \$1,350, \$2,000
<i>Travel</i>	\$500, \$800, \$1,000
<i>Clubs and associations</i> . . .	\$80, \$225, \$325
<i>Doctors and dentists</i>	\$100
<i>Books</i>	\$300

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<i>Insurance</i>	None, \$50, \$350
<i>Savings and investments</i>	None, \$1,000, \$2,000

Vacation: 3, 4, 6 weeks. One contributes to the support of two dependents. Two have medium priced cars, the other "cannot afford an automobile." One lives "comfortably," another "simply."

(*Serial Nos.* B-30, 31, 32.)

XLI. *Economic Group \$8600-\$9000*

Three Assistant, Associate and Full Professors,
ages 36-47, unmarried.

<i>Salaries</i>	\$3,500, \$4,500, \$8,000
<i>Supplementary earnings</i>	None, \$100, \$5,500
<i>Income from</i> <i>private property</i>	None, \$500, \$4,325
<i>Rent</i>	\$100 (dormitory)
<i>Owned homes worth</i>	\$25,000, \$30,000
<i>Service</i>	\$180, \$1,110, \$2,050
<i>Travel</i>	None, \$400, \$1,000
<i>Clubs and associations</i>	\$110, \$150, \$260
<i>Insurance</i>	None, \$60, \$250
<i>Savings and investments</i>	Amount not stated (2), \$500

Vacation: 2, 4, 14 weeks. One pays \$850 for the education of a dependent child. Two have expensive cars; the third travels in Europe each summer. They describe their life as "comfortable" and "excellent."

(*Serial Nos.* A-57, 58, 65.)

XLII. *Economic Group \$8750-\$9000*

Six Professors, ages 40-65, with wife and three or four
children of school and college ages.

<i>Salaries</i>	\$5,000 \$6,000, \$7,000 \$7,000, \$7,500, \$8,500
<i>Supplementary earnings</i>	\$50, \$300, \$550, \$1,050, \$2,300, \$2,400
<i>Income from</i> <i>private property</i>	None (2), \$450, \$1,400, \$1,500, \$2,750
<i>Rent</i>	\$2,000
<i>Owned homes worth</i>	\$14,000, \$18,000, \$20,000, \$30,000, \$30,000
<i>Service</i>	None, \$100, \$300, \$600, \$930, \$1,020

Faculty Incomes and Living Costs

<i>Education of children</i>	None, \$250, \$850, \$1,500, \$2,500, \$4,000
<i>Travel</i>	None (2), \$150, \$200, \$250, \$500
<i>Clubs and associations</i>	\$73, \$80, \$125, \$154, \$175, \$250
<i>Doctors and dentists</i>	\$350
<i>Insurance</i>	\$31, \$275, \$350, \$410, \$430, \$1,170
<i>Savings and investments</i>	None (2), \$600, \$750, \$2,000, amount not stated
<i>Deficit</i>	Amount not stated, \$2,000

Vacation: none, 2, 3, 3, 4, 14 weeks. One partially supports a dependent. Wife contributes additional income by earnings in three cases. Three have cheap cars and three medium priced cars. Surplus in two cases is paid on mortgage. Deficit of \$2,000 met from principal. As to how the other deficit (amount not stated) is met, the reply is: "God knows." One describes mode of living as "meager." Another: "Modest living, minimum of entertainment, no theaters, rarely 'concerts.'" Still another: "Normal without luxuries or much vanity."

(Serial Nos. E-18, 19, 20, 21, 37, 42.)

XLIII. *Economic Group \$9200-\$9700*

Three Assistant and Full Professors, ages 36-60, with wife and one child under school age or adult.

<i>Salaries</i>	\$3,500, \$8,000, \$8,500
<i>Supplementary earnings</i>	None, \$1,000, \$1,200
<i>Income from private property</i>	None, \$225, \$5,650 (mostly gift)
<i>Rent</i>	\$2,000, amount not stated
<i>Owned home worth</i>	\$20,000
<i>Service</i>	\$200, \$850, \$1,540
<i>Travel</i>	None, \$300, \$400
<i>Clubs and associations</i>	None, \$90, \$95
<i>Books</i>	\$50
<i>Doctors and dentists</i>	\$210
<i>Insurance</i>	None, \$200, \$1,010
<i>Savings and investments</i>	None (2), \$1,000

Vacation: none, 5, 5 weeks. Two have moderate priced cars. One spends \$250 attending meetings of professional societies. One finds mode of living "satisfactory."

(Serial Nos. C-36, 37, 38.)

XLIV. *Economic Group \$9200-\$9700*

Two Professors, ages over 50, with wife and two children over 21 years.

<i>Salaries</i>	\$6,000, \$7,000
<i>Supplementary earnings</i>	None, \$1,800
<i>Income from</i>	
<i>private property</i>	\$380, \$3,700
<i>Rent</i>	\$1,550 (other not given)
<i>Service</i>	\$700, \$1,800
<i>Education of children</i>	None, considerable
<i>Clubs and associations</i>	\$110, \$158
<i>Travel</i>	Little, \$300
<i>Insurance</i>	None, \$85
<i>Savings and investments</i>	None, \$2,000

Vacation: 4, 5 weeks. Both have moderate priced cars.

(Serial Nos. D-21, 48.)

XLV. *Economic Group \$9400-\$10,300*

Four Assistant and Full Professors, ages 29-52, with wife and three children under 14 years.

<i>Salaries</i>	\$3,000, \$6,500, \$6,500, \$10,000
<i>Supplementary earnings</i>	None (3), \$500
<i>Income from</i>	
<i>private property</i>	\$300 (partly gift), \$2,000 (partly gift), \$3,500, \$6,500 (partly gift)
<i>Rent</i>	\$1,200
<i>Owned homes worth</i>	\$22,500, \$23,000, \$28,000
<i>Service</i>	None (2), \$500, \$1,500
<i>Education of children</i>	\$1,000, \$1,236, \$1,700, \$1,900
<i>Clubs and associations</i>	\$194, \$205, \$216, \$225
<i>Travel</i>	None (2), \$100, \$150
<i>Doctors and dentists</i>	\$100, \$100, \$1,500
<i>Insurance</i>	None, \$225, \$750, \$1,114
<i>Savings and investments</i>	None (3), \$250

Vacation: none, 3, 5, 16 weeks. Two partially support dependents. Two have medium priced cars and two no cars. Two state they can afford almost nothing for books. One has neither surplus nor deficit; can afford almost nothing for theater, concerts, etc. Two state they cannot afford a car, vacation or social relaxation. One says: "We live in a two-family apartment in a location inadvisable for my children. Without private income we could not make ends meet, hence I would not be here, as this income barely enables us to get along." Another says: "We have a comfortable home, limited clothing, inadequate life insurance, as I have no more than an equity of \$13,000 in my house and lot. My income does not provide for unexpected contingencies, vacation or savings, and leaves no leeway for education of children."

(Serial Nos. E-22, 23, 24, 25.)

XLVI. *Economic Group \$10,000-\$11,000*

Five Assistant and Full Professors, ages 41-57, married with no children.

<i>Salaries</i>	\$5,000, \$5,000, \$6,000, \$8,000, \$8,000
<i>Supplementary earnings</i>	\$100, \$1,000, \$1,300, \$1,300, \$4,000
<i>Income from private property</i>	\$750, \$1,000, \$2,000, \$4,000 \$4,000
<i>Rent</i>	\$1,760, \$2,400, \$3,000
<i>Owned homes worth</i>	\$15,000, \$18,000
<i>Service</i>	\$500, \$750, \$800, \$965, \$1,400
<i>Travel</i>	\$250, \$300, \$500, \$600, \$2,000
<i>Clubs and associations</i>	\$75, \$100, \$120, \$200, \$220
<i>Secretarial work</i>	\$350
<i>Insurance</i>	\$470, \$500, \$530, \$800, \$1,080
<i>Savings and investments</i>	"Small," \$750, \$1,500, \$2,000, \$3,000

Vacation: 2, 8, 12, 15, 17 weeks. One partially supports two dependents, another seven. Two have high priced cars, one a medium priced car. One says: "I live comfortably but quietly." Another: "Live comfortably but savings are small." Another says: "My standard of living is satisfactory, but it is an accident that I have few dependents and an independent income. If I had children I could not hope to give them the advantages of education and travel enjoyed by the general run of students who enter my classroom."

(Serial Nos. B-33, 34, 35, 36, 45.)

XLVII. *Economic Group \$10,600-\$11,200*

Seven Assistant, Associate and Full Professors, ages 33-67,
with wife and two children (in three cases below
school age, in four of school age or older).

<i>Salaries</i>	\$3,000, \$3,500, \$5,000, \$5,000, \$7,000, \$7,000 \$7,000
<i>Supplementary earnings</i> .	None, \$25, \$500, \$500, \$1,000, \$2,000, \$3,000
<i>Income from</i>	
<i>private property</i> . . .	\$1,000, \$2,000, \$4,050, \$5,000, \$5,500 (partly gift), \$7,000, \$7,200 (mostly gift)
<i>Rent</i>	\$1,500, \$2,000
<i>Owned homes worth</i> . .	\$16,500, \$18,000, \$21,000, \$25,000, \$29,000
<i>Service</i>	\$500, \$820, \$820, \$900, \$1,250, \$1,920, \$2,150
<i>Education of children</i> . .	None (3), \$260, \$300, \$1,200, \$3,050
<i>Travel</i>	None (5), \$200, \$1,000
<i>Clubs and associations</i> . .	\$15, \$18, \$68, \$70, \$175, \$180, \$525
<i>Insurance</i>	\$93, \$100, \$371, \$500, \$515, \$592, \$1,150
<i>Savings and investments</i> .	None, \$500, \$1,000, \$1,000, \$1,200, \$3,000, \$3,000

Vacation: not stated (2), 1, 2, 4, 4, 4 weeks. One wholly supports two dependents; three partially support one or two dependents. One has a cheap car, three have moderate priced cars, and one an expensive car. In one case children are self-supporting. One says: "I live in reasonable comfort in spite of heavy expenses for illness." Another says: "We live comfortably, but have no automobile, take an inexpensive vacation, and must watch expenditures very carefully to come out ahead." Another says: "We live modestly and have no expensive tastes." Still another finds his mode of living "highly satisfactory." One writes: "Owing to the fact that we do not have to depend on my salary we are enabled to live comfortably."

(Serial Nos. D-22, 23, 25, 26, 27, 49, 54.)

XLVIII. *Economic Group \$11,000-\$12,000*

Two Professors, in the fifties, with wife and three children
of school and college age.

<i>Salaries</i>	\$6,000, \$10,000
<i>Supplementary earnings</i> .	\$1,300, \$4,000
<i>Income from</i>	
<i>private property</i> . . .	\$200, \$1,500

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<i>Owned homes worth</i>	\$30,000 (other not given)
<i>Service</i>	\$700, \$1,300
<i>Education of children</i>	\$1,500, \$1,600
<i>Clubs and associations</i>	\$70, \$265

<i>Insurance</i>	\$70, \$380
<i>Savings and investments</i>	None, \$2,500

Vacation: none, 6 weeks. In one case the wife contributes supplementary earnings, in the other the children do so. One has a cheap car, one a medium priced car. No health expense last year but heavy doctor's bills some years. No funds for secretary; few books. "Drained dry by education of children. Wife and family have done most of the housework."

(Serial Nos. E-26, 28.)

XLIX. *Economic Group \$12,000-\$13,600*

Three Assistant, Associate and Full Professors, ages 30-65,
with wife and one child either adult or very young.

<i>Salaries</i>	\$3,000, \$6,000, \$6,500
<i>Supplementary earnings</i>	\$950, \$5,000, \$9,500
<i>Income from</i> <i>private property</i>	None, \$1,200, \$6,140
<i>Rent</i>	\$1,000, \$1,150, \$1,200
<i>Service</i>	\$275, \$975 (third has 1 regular servant and spends \$100 for occasional service)
<i>Education of child</i>	None (2), \$200
<i>Travel</i>	\$100, \$150, \$300
<i>Clubs and associations</i>	\$90, \$100, \$135
<i>Books and</i> <i>professional expenses</i>	\$900
<i>Secretarial service</i>	\$100
<i>Insurance</i>	None, \$130, \$650
<i>Savings and investments</i>	\$1,000, \$4,000, \$6,000

Vacation: none, 3, 7 weeks. Wife contributes supplementary earnings in one case. All three have medium priced cars. One says: "We live the simple life." Another: "My manner of living meets my desires and needs."

(Serial Nos. C-39, 40, 41.)

L. *Economic Group \$12,000-\$15,000*

Five Professors, ages 43-65, with wife and two children,
half of them under 15 years.

<i>Salaries</i>	\$6,000 \$6,500, \$7,000, \$7,500, \$9,000
<i>Supplementary earnings</i>	\$2,900, \$3,000, \$4,500, \$5,300, \$6,000
<i>Income from</i>	
<i>private property</i>	None, \$100, \$850, \$3,000, \$3,350
<i>Owned homes worth</i>	\$18,500, \$22,000, \$22,000, \$25,000, \$50,000
<i>Service</i>	\$800, \$950, \$980, \$1,000, \$1,300
<i>Education of children</i>	None (2), \$200, \$700, \$1,600
<i>Travel</i>	\$100, \$350, \$400, \$500, \$1,000
<i>Clubs and associations</i>	\$85, \$100, \$187, \$208, \$350
<i>Doctors and dentists</i>	\$350
<i>Books and</i>	
<i>secretarial service</i>	\$800
<i>Insurance</i>	\$43, \$90, \$100, \$640, \$1,275
<i>Savings and investments</i>	\$1,200, \$3,000, \$7,000, amount not stated (2)

Vacation: none, not stated, 1, 4, 5 weeks. One partially supports a dependent. Four have medium priced cars. Regularly employed domestic service is the rule. All own their homes. In two cases the annual savings are applied on mortgage. Wife contributes supplementary earnings in one case. One says: "We live comfortably but lack the means for travel." Another states: "We live comfortably but do little traveling or entertaining; as the children are young the cost of education is as yet small." Another describes his mode of living as "quite satisfactory."

(Serial Nos. D-28, 29, 31, 59, 60.)

LI. *Economic Group \$12,000 and over*

Four Professors, ages 40-60, married with no children.

<i>Salaries</i>	\$6,500, \$7,000, \$7,000, \$8,000
<i>Supplementary earnings</i>	None, \$5,000, \$5,000, \$45,000
<i>Income from</i>	
<i>private property</i>	None, variable, \$2,000, \$8,000
<i>Owned homes worth</i>	\$16,000, \$32,000, \$35,000
<i>Service</i>	\$1,080, \$1,200, \$1,300, \$1,500
<i>Travel</i>	\$800, \$1,000, \$1,500, \$10,000
<i>Clubs and associations</i>	\$80, \$100, \$300, \$3,500
<i>Insurance</i>	None (2), \$125, \$3,500
<i>Savings and investments</i>	Variable, \$2,000, \$3,000, \$12,000

Vacation: 4, 6, 12, 20 weeks. Two partially support one dependent each; one partially supports two dependents. One has his house furnished him. One has a high priced car, one a medium priced car. One states: "Accumulated savings have been wiped out on more than one occasion by sickness. Present income does not provide adequate safeguard for the future, as outside sources of income are uncertain." Others make no comment. All have regularly employed servants.

(*Serial Nos.* B-36, 37, 38, 49.)

LII. *Economic Group \$10,000-\$16,000*

Two Professors under 55, with wife and three children
either adults or under 8 years.

<i>Salaries</i>	\$7,000, \$9,000
<i>Supplementary earnings</i>	None, \$1,800
<i>Income from</i> <i>private property</i>	\$1,200, \$7,000 (partly gift)
<i>Owned homes worth</i>	\$15,000, \$20,000
<i>Service</i>	\$800, \$1,166
<i>Education of children</i>	\$144, \$1,000
<i>Travel</i>	\$100, \$860
<i>Clubs and associations</i>	\$140, \$933
<i>Clerical assistance</i>	\$2,300
<i>Books</i>	\$762
<i>Insurance</i>	\$183, \$718
<i>Savings and investments</i>	\$100, \$2,000 (paid on mortgage)

Vacation: 1, 6 weeks (the latter with interruptions). One has an expensive car, the other has two medium priced cars. One has had exceptionally large medical bills. One says: "Our home is a small nine-room house; the help is of a general type supplemented by a nurse girl in the afternoon, leaving much cleaning, washing (with a machine), care of children, lawn mowing and care of furnace to the family. We economize on the house, help and clothing so as to spend more on books, travel, etc. Much of the clothing is made and all mending and altering done by the wife." The other says: "We live in a good house and live well but economically; cannot afford to travel."

(*Serial Nos.* E-29, 43.)

LIII. *Economic Group \$15,000-\$20,000*

Two Professors, near retiring age, with wife and one child past 20 years.

<i>Salaries</i>	\$7,000, \$8,000
<i>Supplementary earnings</i> . .	\$6,840, \$9,460
<i>Income from</i> <i>private property</i>	None, \$5,500
<i>Owned homes worth</i>	\$20,000, \$35,000
<i>Service</i>	\$790, \$2,740
<i>Education of children</i> . . .	None, \$1,200
<i>Travel</i>	\$1,200, \$2,000
<i>Clubs and associations</i> . . .	\$175, \$230
<i>Doctors and dentists</i> . . .	\$286
<i>Books, etc.</i>	\$216
<i>Insurance</i>	None (2)
<i>Savings and investments</i> . .	None, \$5,500

Vacation: 7, 8 weeks. One largely supports a dependent. Both have regularly employed servants. One describes his mode of living as "reasonably comfortable." The other makes no comment.

(Serial Nos. C-42, 43.)

LIV. *Economic Group \$19,100-\$35,000 and over*

Five Professors, ages 43-58, with wife and two or three children of primary school, preparatory school, and college age.

<i>Salaries</i>	\$5,000, \$6,500, \$6,500, \$7,000, \$7,500
<i>Supplementary earnings</i> . .	None (3), \$600, \$2,000
<i>Income from</i> <i>private property</i>	\$14,000, \$25,000, \$27,000, \$28,000, over \$35,000
<i>Owned homes worth</i>	\$20,000, \$35,000, \$45,000, \$70,000 (other not given)
<i>Service</i>	\$1,660, \$2,360, \$3,000, \$5,300, \$6,250
<i>Education of children</i> . . .	\$300, \$3,500, \$3,600, \$5,250
<i>Travel</i>	\$500, \$1,000, \$3,000, \$6,000
<i>Clubs and associations</i> . . .	\$20, \$50, \$200, \$550, \$1,575
<i>Doctors and dentists</i> . . .	\$2,000

<i>Insurance</i>	None, \$1,000, \$1,060, \$1,200
<i>Savings and investments</i>	\$4,000, \$7,300, \$10,000 (other amounts not given)

Vacation: 6, 6, 6, 8, 14 weeks. Four contribute to the support of dependents. One has two cheap cars, one has a medium priced car, one has an expensive car, another has two, while the fifth has three cars (one at summer home). One had a surplus of \$10,000 which was invested, and his mode of living is "comfortable." One says: "This income enables me to maintain my house in New Haven about as I want it, to educate my children in private schools, to travel as much as I or the family wish, to buy what books I desire, and to spend what I wish on theatres and recreation. I do not try particularly to save nor do I feel that we live extravagantly." Another says: "We live in a ten-room house on one of the best residential streets. We dress well but not lavishly. We travel in Europe in the summer but take cabin class steamers and avoid the most expensive hotels. The children get the best education available. We economize on automobiles." Another states that he has "a perfectly comfortable time."

(*Serial Nos.* D-33, 34, and E-30, 31, 32.)

APPENDIX B

(Relating to Chapter X)

ASSESSED VALUATIONS OF FACULTY AND NON-FACULTY RESIDENCES IN VARIOUS NEIGHBORHOODS

REGION I

HAMDEN. WHITNEY, ARDMORE, AND FILBERT STS.

I. 2 faculty residents. Average assessed value, \$8,860

1 professor	\$ 8,970
1 assistant professor	8,750

II. 11 non-faculty residents. Average assessed value, \$8,895

3 business managers	\$ 8,300; \$ 9,400; \$ 8,550
3 business employees	7,950; 11,300; 7,650
1 realtor	7,750
1 foreman, post office	8,450
1 farmer	9,984
1 salesman	9,260
1 cigar maker	9,250

REGION II

WHITNEYVILLE. CLIFFORD TO RALSTON TO CARLETON STS.

I. 7 faculty residents. Average assessed value, \$7,664

1 professor	\$ 6,800
2 associate professors	6,700; \$ 8,750
2 assistant professors	6,700; 7,400
2 instructors	9,900; 7,400

II. 16 non-faculty residents. Average assessed value, \$7,384

5 business managers and office executives	\$ 5,900; \$ 4,800; \$ 6,500; \$12,400; 8,200
2 engineers	6,000; 7,050
2 carpenters	5,000; 5,900
2 salesmen	6,200; 7,050
1 druggist	6,700
1 factory inspector	7,250
1 Y. M. C. A. secretary	9,900
1 bookkeeper	12,900
1 toolmaker	6,400

Faculty Incomes and Living Costs

REGION III

EDGEWOOD TO GOFFE, WINTHROP TO PENDLETON STS. (B)

I. 7 *faculty* residents. Average assessed value, \$6,429

1 associate professor . . .	\$ 8,400
3 assistant professors . . .	7,325; \$ 5,975; \$ 4,925
3 instructors	5,750; 6,150; 6,475

II. 24 *non-faculty* residents. Average assessed value, \$6,545

5 business executives . . .	\$ 8,650; \$ 6,450; \$ 5,350; \$ 9,175;
	8,525
5 clerks	5,100; 5,000; 6,550; 5,512;
	5,900
3 office executives	5,700; 8,700; 5,900
2 salesmen	5,975; 5,950
2 firemen, N. H. fire dept. .	5,400; 7,030
1 railroad employee	7,325
1 secretary	5,525
1 machinist	5,400
1 supt. of buildings	9,050
1 water company inspector .	6,200
1 realtor	6,235
1 meat market proprietor .	6,475

REGION IV

FOUNTAIN, HARRISON, W. PROSPECT, AND WHALLEY. (B)

I. 3 *faculty* residents. Average assessed value, \$7,490

1 associate professor . . .	\$ 5,100
1 assistant professor . . .	9,862
1 instructor	7,507

II. 9 *non-faculty* residents. Average assessed value, \$6,718

1 business executive . . .	\$ 8,700
1 railroad agent	6,487
1 factory employee	6,570
1 architect	5,190
1 electrician	6,460
1 salesman	7,640
1 carpenter	5,987
1 lawyer	8,575
1 clerk	4,850

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REGION V

WESTVILLE, YALE, WEST ROCK, CENTRAL, ALDEN, AND MCKINLEY AVES. (A)

I. 11 *faculty* residents. Average assessed value, \$10,524

3 professors	\$10,005; \$ 9,450; \$12,750
2 associate professors	11,710; 8,200
5 assistant professors	5,750; 13,750; 13,850; \$ 6,450;
	11,950
1 instructor	11,900

II. 31 *non-faculty* residents. Average assessed value, \$11,674

9 business executives	\$ 7,500; \$ 8,005; \$10,975; \$16,550;
	14,950; 16,750; 12,750; 14,750;
	16,900
6 engineers	8,400; 8,000; 13,975; 10,950;
	14,550; 19,300
6 salesmen	8,500; 14,750; 7,250; 6,650;
	12,650; 13,885
1 city official	14,250
1 railroad employee	9,605
1 lawyer	13,850
1 hospital superintendent . .	10,475
1 factory foreman	11,900
1 water company inspector .	7,400
1 master mechanic	10,600
1 factory employee	9,700
1 cigar store proprietor . .	7,150
1 produce man	8,975

REGION VI

TRUMBULL, BRADLEY, AND LINCOLN STS. (B)

I. 12 *faculty* residents. Average assessed value, \$14,657

7 professors	\$13,750; \$17,500; \$15,400; \$16,900;
	11,100; 11,545; 17,335
3 associate professors	6,800; 23,150; 21,400
2 assistant professors	12,855; 8,150

II. 13 *non-faculty* residents. Average assessed value, \$15,776

2 physicians	\$22,700; \$12,000
2 dentists	14,450; 24,540

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2 lawyers	17,350; 16,900
1 business executive . . .	17,335
1 president, detective agency	7,050
1 clerk	8,150
1 nurse	8,515
1 post office employee . .	9,005
1 realtor	25,500
1 bank cashier	21,600

REGION VII

BOUNDED BY WILLOW, ORANGE, BISHOP, AND WHITNEY. (A TO AA)

I. 29 faculty residents. Average assessed value, \$14,348

14 professors	\$16,200; \$13,100; \$18,600; \$13,900;
	12,200; 27,000; 17,100; 13,900;
	16,400; 12,390; 20,950; 15,250;
	20,175; 12,125
3 associate professors . . .	12,450; 10,800; 11,100
5 assistant professors . . .	11,085; 9,350; 9,680; 18,300;
	16,555
7 instructors	8,900; 10,500; 10,050; 11,030;
	7,320; 24,210; 15,470

II. 44 non-faculty residents. Average assessed value, \$15,958

16 business executives . . .	\$13,900; \$13,000; \$13,400; \$18,600;
	11,085; 14,400; 12,425; 14,100;
	10,925; 18,800; 18,500; 19,400;
	39,400; 38,900; 40,770; 17,445
6 physicians	15,950; 14,675; 10,350; 14,355;
	16,500; 21,650
5 lawyers	16,050; 12,455; 16,200; 13,050;
	27,620
5 office workers	11,750; 11,500; 11,550; 13,750;
	12,850
3 realtors	13,250; 13,000; 18,400
2 grocers	11,675; 9,250
1 pastor	13,100
1 dentist	8,125
1 bank teller	11,030
1 detective	7,320
1 author	10,750
1 chemist	12,150
1 judge	18,800

REGION VIII

EVERIT, COLD SPRING, AND LIVINGSTON STS. (A)

I. 13 *faculty* residents. Average assessed value, \$15,613

11 professors	\$13,625; \$13,200; \$13,075; \$30,500;
	11,400; 14,265; 15,100; 12,515;
	17,595; 14,550; 18,400
1 associate professor	16,750
1 assistant professor	12,000

II. 25 *non-faculty* residents. Average assessed value, \$16,175

10 business executives	\$12,000; \$22,500; \$32,825; \$12,800;
	13,600; 13,710; 13,515; 12,500;
	18,200; 13,320
3 lawyers	16,750; 16,100; 12,350
2 realtors	13,500; 20,120
1 druggist	20,700
1 salesman	13,000
1 hairdresser	13,750
1 bookkeeper	15,775
1 army captain	22,680
1 dentist	21,100
1 nurse	13,350
1 pastor	15,100
1 architect	12,765
1 engineer	12,365

REGION IX

HUNTINGTON, HIGHLAND, WHITNEY, AND AUTUMN STS. (A)

I. 8 *faculty* residents. Average assessed value, \$17,929

3 professors	\$19,750; \$19,080; \$10,600
2 assistant professors	37,150; 9,450
3 instructors	22,000; 13,650; 11,750

II. 25 *non-faculty* residents. Average assessed value, \$19,476

6 business executives	\$21,825; \$21,435; \$19,700; \$10,610;
	11,170; 23,900
6 office executives	9,450; 10,300; 10,110; 10,260;
	14,850; 11,500
3 realtors	25,250; 51,060; 14,740
3 physicians	21,200; 36,650; 14,875
1 booking agent	19,700
1 chemist	23,350
1 proof-reader	13,900

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1 pastor	33,450
1 mason	9,925
1 lawyer	26,000
1 engraver	21,700

REGION X

EDGEHILL ROAD TO ARMORY STREET. (A)

I. 9 *faculty* residents. Average assessed value, \$21,728

7 professors	\$18,500; \$23,700; \$32,500; \$29,200;
	25,000; 15,030; 14,780
2 assistant professors	22,100; 14,780

II. 20 *non-faculty* residents. Average assessed value, \$25,584

11 business executives	\$16,700; \$24,200; \$22,100; \$28,000;
	19,700; 16,200; 14,400; 33,000;
	50,900; 25,500; 19,300
4 lawyers	34,500; 31,300; 31,300; 34,500
1 city controller	22,080
1 physician	16,000
1 chief designer	16,000
1 engineer	20,500
1 author	15,500

REGION XI

ST. RONAN STREET AND LOOMIS PLACE. (A)

I. 11 *faculty* residents. Average assessed value, \$22,370

8 professors	\$32,580; \$20,500; \$17,825; \$21,740;
	11,825; 26,020; 32,740; 30,700
1 associate professor	21,000
1 assistant professor	13,750
1 instructor	17,400

II. 16 *non-faculty* residents. Average assessed value, \$38,530

10 business executives	\$37,500; \$19,300; \$42,100; \$21,650;
	78,280; 45,000; 33,475; 72,520;
	49,500; 47,230
3 physicians	28,535; 23,775; 32,050
1 railroad commissioner	19,460
1 paymaster	34,625
1 lawyer	31,500

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REGION XII

PROSPECT ST. (A)

I. 5 *faculty* residents. Average assessed value, \$37,017

5 professors	. . . . .	\$81,535; \$33,350; \$13,850; \$29,360;
		26,990

II. 6 *non-faculty* residents. Average assessed value, \$45,358

5 business executives	. . . . .	\$61,412; \$28,800; \$24,880; \$66,300;
		24,880
1 army captain	. . . . .	65,875

APPENDIX C

(Relating to Chapter XI)

EARNINGS IN OTHER CALLINGS COMPARED WITH UNIVERSITY SALARIES

For purposes of comparison with earned incomes in other occupations and callings, the salary schedule of the undergraduate schools of Yale University is here repeated from Chapter IV. As mentioned earlier, this scale is correct as of May 1, 1928. Immediately thereafter an increase of \$500 was made to assistant professors and associate professors in each grade, and the minimum professorial salary was fixed at \$6,000.

NORMAL SCALE, YALE UNDERGRADUATE SCHOOLS, 1928

Instructors:

- 1st year, \$1,500 (appointments at this salary now uncommon)
- 2d year, 1,800 (now the usual initial salary)
- 3d year, 2,100
- 4th year, and thereafter \$2,500; in a few exceptional cases \$3,000

Assistant Professors:

- 1st appointment, 3 years, \$3,000
- 2d appointment, 3 years, 3,500
- 3d appointment, 3 years, 4,000
- In a few exceptional cases \$4,500 and \$5,000

Associate Professors:

- \$4,000 or \$4,500 and \$5,000

Professors:

- \$5,000 to \$8,000

The academic salary scales in the undergraduate schools of other universities are not significantly different. At Harvard they are somewhat higher; at other universities, particularly in the West, they are generally somewhat lower.

Salaries in the Public Schools, City of New York

Effective January 1, 1928.

Superintendents and members of the Board of Examiners:

Superintendent of Schools	\$25,000
Associate Superintendent	12,500
Members of the Board of Examiners	11,000
District Superintendents	10,000
Superintendent of Libraries	6,000

Directors:

Attendance	12,500
Reference, Research and Statistics	10,000
Extension	10,000
Evening and Continuation Schools	10,000
Music	9,000
Vocational Activities	8,500
Health Education	8,500
Civics and Correlated Subjects	7,500
Lectures and Visual Instruction, High School Organization, Foreign Languages in high schools and junior high schools, Kindergartens, and Inspector of Ungraded Classes	7,000
Art in high schools, Drawing, Home Making, Sewing	6,500
Commercial Subjects; Vocational Investigation, Guidance and Placement; and Supervisor of Day Classes for Adults in English and Citizenship	6,000

Assistant Directors:

Attendance	10,000
Reference, Research and Statistics (first)	7,000
Administrative	6,500
Modern Languages	6,000
Reference, Research and Statistics (second)	5,800

*Assistant Directors with salaries varying according
to year of service, ranging from one to five or
six years:*

	<i>Minimum</i>	<i>Maximum</i>
Kindergartens, Home Making, Inspectors of Un- graded Classes, etc.	\$3,800	\$ 4,800
Manual Training, Visual Instruction	4,000	5,000
Sewing	4,700	5,000
Music, Physical Training and Educational Hygiene	4,800	6,000
Extension Activities, Evening Schools	5,000	6,000
Continuation Schools	6,500	8,000

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Principals with salaries varying according to year of service, ranging from one to five years:

	<i>Minimum</i>	<i>Maximum</i>
Elementary Schools:		
having 25 to 48 classes	\$5,000	\$ 6,000
having 49 to 84 classes	5,500	6,500
having 85 or more classes	6,000	7,000
Junior High Schools and Schools for the deaf, crippled and probationary schools:		
having 25 to 48 classes	5,500	6,500
having 49 to 84 classes	6,000	7,000
having 85 or more classes	6,500	7,500
Parental Schools (with maintenance)	5,500	6,500
Vocational or Trade Schools:		
having 25 to 48 classes	6,000	7,000
having 49 to 84 classes	6,500	7,500
having 85 or more classes	7,000	8,000
Compulsory Continuation Schools:		
having 25 to 48 classes	6,000	7,000
having 49 to 75 classes	6,500	7,500
having 76 or more classes	8,000	9,000
Day High Schools and Training Schools for Teachers:		
having fewer than 50 teaching positions . . . (one rate)		7,500
having 50 or more teaching positions	8,500	10,000

Teachers. The schedules for all teachers provide for annual increases, ranging from the first year of service to the sixth in some cases, to the 13th, 14th, and 15th year more generally. To receive the maximum salary the teacher must meet certain conditions as to preparation and excellence in teaching and service.

Teachers in Day Elementary Schools and Junior High Schools:

	<i>Minimum</i>	<i>Maximum</i>
Kindergartners and Teachers of 1-A to 6-B classes	\$1,608	\$ 3,504
Teachers of 1-A to 6-B classes assigned as Senior Teachers	1,758	3,654
Teachers of Junior High School Grades	2,040	4,200
Teachers of 7-A and higher classes assigned as Senior Teachers	2,190	4,350
Teachers of music, foreign languages, vocational subjects, special classes, etc., in day elementary schools	2,040	4,200

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Teachers in Vocational and Trade Schools:

	<i>Minimum</i>	<i>Maximum</i>
For Boys	\$2,148	\$ 4,656
For Girls:		
Teachers of garment machine operating, dress-making, sewing, novelty millinery, manicuring and shampooing	2,040	4,200
Department vocational teachers	2,148	4,656
Teachers of physical training and cooking and teachers of non-vocational subjects assigned to vocational or trade schools for girls	2,148	4,656
Heads of trade departments	3,600	4,620

Teachers in Day High Schools:

Assistant teachers	2,148	4,656
Assistant teachers in agriculture	2,362	5,121
First assistants	4,308	5,688
Teachers assigned as administrative assistants	4,308	5,688

Teachers in Training Schools for Teachers:

Assistant teachers	2,364	5,124
First assistants	4,488	5,868
Teachers assigned as administrative assistants	4,488	5,868

(Figures quoted from the publication entitled "Salary Schedules for Members of the Supervising and Teaching Staff, et al., including Attendance Officers, adopted by the Board of Education, City of New York, December 29, 1927, to become effective January 1, 1928.")

Salary Schedules in some Colleges in New York City

College of the City of New York and Hunter College

Effective January 1, 1928

Instructors, Assistant Librarians	\$2,148	to	\$ 4,404
Assistant Professors	4,000	to	5,592
Associate Professors	5,500	to	7,000
Professors	6,000	to	9,600

Columbia University

Effective July 1, 1928

Instructors	\$2,400	to	\$ 3,000
Assistant Professors	3,600	to	5,000
Associate Professors	5,000	to	6,000
Professors	7,500	to	12,000

(Figures from the *New York Times*, April 9 and 10, 1928.)

Conditions at the University of California

A very thorough study of conditions at the University of California has recently been published by J. B. Peixotto. It is entitled "Getting and Spending at the Professional Standard of Living; a study of the costs of living an academic life." (Macmillan and Company, 1927.)

This work affords a detailed analysis of the income and expenditures of ninety-six married faculty members. Salaries and living costs are somewhat lower than at Yale, and rents run only from 15 to 25 per cent, average 17 per cent, of income. This difference from conditions here probably depends in part upon a smaller item for heating on account of difference in climate. It was found that "as a rule the salaries of these University professors did not pay their living expenses . . . even at the advisedly modest type of the professional standard which a university circle represents. . . . In some way (extra teaching, outside work, or private income) from a quarter to a little more than a third of the total income is obtained from a source other than salary." The salary range is from \$1,400 to \$8,000. Seventy-five per cent of the assistant professors receive less than \$3,000. Eighty per cent of the associate professors receive between \$3,000 and \$4,000; their average is \$3,400. The mass of those of professorial rank receive between \$4,000 and \$5,000. The total incomes range from \$1,800 to \$16,000 with few at either extreme. The mean income or economic level is \$5,300; 60 per cent have total incomes of less than \$5,000.

Accessory earnings were reported by 75 per cent of the faculty members of all grades; 50 per cent added \$500 or less to their income; 35 per cent earned \$1,000; and only 11 per cent more than \$2,000; one individual earned \$5,000 and another \$8,400. The wives also contributed earnings in a number of cases.

In two-thirds of the families there was some income from private property, ranging from \$3 up to \$5,000; 50 per cent were below \$250; 28 per cent have incomes from private property of \$1,000 or more; but for the majority property income is an insignificant contribution toward meeting the family budget.

The average for service was \$260; the median \$153. "No family below \$6,000 had full time domestic service. . . . The desire to save the cost of domestic service was so thoroughgoing that 21 per cent of the wives, most of them college bred, did all their laundry work." Out of ninety-six families, fifty-five have cars. "They economize on preventive dental work because they must."

Deficits appear in many of the annual accounts for these families. Savings in few cases exceed the amount of a premium for life insurance, for which the average is \$162. Thirty-three per cent of the faculty can afford to take no vacation; 60 per cent take less than four weeks.

On the whole it is found that under the conditions in Berkeley, California, "not less than \$7,000 is requisite to maintain a reasonable comfort basis for professional life. With any sum less than \$7,000, much energy is deflected from constructive tasks . . . to go toward efforts to force a lesser total upward." The study shows that for men in academic life "either they are tacitly told they may consider the university job a part time occupation or it is implied that academic men must live in other ways than the professional classes in general."

*Incomes of the Members of the Faculties of Other Colleges
and Universities*

The General Education Board has recently published a study of faculty salaries and related matters which is based on returns from 302 colleges of arts, literature and science or universities having corresponding colleges or departments, and from 11,361 faculty members. "All geographical divisions of the country and both types of colleges of arts, literature, and science—262 men's and coeducational institutions and forty women's colleges—are represented in these 302 institutions."

The average salary in 1926-1927 of professors, associate professors, assistant professors, and instructors in these institutions was \$2,958. The average salary ranged for the several geographical divisions from \$2,660 for the Southern States to \$3,385 for New England. The average salary for all ranks varied directly with the size of the institution as based on en-

rollment. This study shows that faculty salaries, although distinctly higher in 1926-1927 than in 1919-1920, have risen only slightly above those prevailing in 1914-1915, if the purchasing power of the dollar is taken into account. "When the nominal average salaries for the respective years are equated in terms of the purchasing power of the dollar for the corresponding years—\$1 for 1914-1915, 48.9 cents as of July, 1920, and 61.7 cents as of July, 1927—the nominal average salary and the real average salary for teachers in the institutions under consideration for these years are as follows:"

	<i>Nominal Average Salary</i>	<i>Real Average Salary</i>
1914-1915	\$1,724	\$1,724
1919-1920	2,279	1,114
1926-1927	2,958	1,825

On the basis of these figures the teaching profession, after losing ground seriously in 1919-1920, has only now got back to a pre-war standard. No comparison is made with the improvement in the economic status of other callings; nor is the increase in the cost of all forms of service taken into account.

The returns from 11,361 faculty members in 369 institutions show that 66.5 per cent supplement their salaries by earned income. "Of the 7,072 teachers from whom we have complete information both as to regular salary and as to amount and character of supplementary earnings, 69.7 per cent do extra teaching or institutional services either in their own or other institutions, and earn by extra teaching practically one-half of all supplementary earnings. However, this does not mean that those included in this group do no other kind of supplementary work. For example, part of the group may also lecture and do other types of work. The next most popular field is writing, with 25.3 per cent; 19.5 per cent lecture, 10 per cent do consulting work, and 25.2 per cent engage in miscellaneous services. Teachers reporting from urban institutions apparently find greater opportunity for writing, extra teaching and institutional services, and consulting work than teachers reporting from rural institutions. In lecturing and miscellaneous services, the comparison is in favor of teachers reporting from rural institutions. The total supplementary earnings of these 7,072 teachers who

do extra work is equal to 23.8 per cent of their regular annual salaries."

The supplementary earnings of these teachers range from less than \$100 to \$10,000 or more. "The median is \$522. Less than a fourth make as much as \$1,000 or more, and 7.7 per cent as much as \$2,000 or more." Of the teachers who supplement their salaries, "71.9 per cent reported that they did it from necessity and 28.1 per cent from choice—evidence that the salaries of 1926-1927 were still inadequate."

"Of the 11,361 teachers answering the second questionnaire, 2,132 or 18.5 per cent replied that they had private, unearned income of an appreciable amount. The amount of unearned income to be considered appreciable was left to the judgment of the teachers themselves. Of the 2,132 teachers with appreciable private income, 1,393 or 65.3 per cent supplement their salaries, as compared with 66.8 per cent of those who presumably do not have appreciable private income. Apparently, appreciable private income has little effect on whether or not the possessor does additional work. Of those who reported appreciable private income and who supplemented their salaries, 44.8 per cent stated that they did it from necessity. Of the many factors compelling teachers, under present salary conditions, to supplement their regular income, perhaps none is more important than family responsibility. Of the 7,376 married teachers replying, 77.2 per cent supplement their regular salary, as compared with 46.7 per cent of the 3,927 single teachers."

This study by the General Education Board also gives information regarding the correlation of funds available for salaries and the size of the faculty. In the period from 1919-1920 to 1926-1927, the endowments of these 302 institutions increased 82.9 per cent and tuition fees were raised 70.5 per cent. The total annual salary expenditures increased 102 per cent, but the average salary of teachers increased only 29.8 per cent. The number of teachers increased 55.5 per cent. The correlation of salary level and size of faculty in these 302 institutions is thus essentially similar to that at Yale.

(Figures quoted from Trevor Arnett, *Teachers' Salaries in Certain Endowed and State Supported Colleges and Universities, with special refer-*

ence to Colleges of Arts, Literature and Science, 1926-1927. Publications of the General Education Board, Occasional Papers, No. 8, New York City, 1928.)

*Salaries of Teachers of Engineering Compared with
Earnings of Engineers in Practice*

A nation-wide survey of the economic conditions of engineers in practice and of teachers of engineering has recently been made by a committee of which Dean Charles H. Warren was chairman (Bulletin No. 4 of the Investigation of Engineering Education, 1926).

The most striking facts shown by the report of that committee are as follows: "After one year the teachers earn steadily less than graduates in practice, until at the thirtieth year after graduation the median total earnings of teachers are but 74 per cent of those of graduates in practice." The salaries of teachers, ages 35 to 55, in the field of engineering are only 56 to 64 per cent of the average of all engineers in outside practice. As compared to the upper grade of that profession, and using as the standard the lower limit of the upper 25 per cent, the professors, ages 45 to 55, in engineering schools receive salaries amounting to 40 and 45 per cent of the earnings of the men outside who are presumably their peers in ability. Nor do the accessory earnings of the teachers greatly alter these relations, even in a field in which the conditions are most favorable to supplementary work, for on the average these teachers are able to augment their incomes in this way by only 25 to 30 per cent.

"Engineering teachers' salaries even when supplemented by outside earnings are decidedly less than are the incomes of the most nearly comparable class, engineering graduates in practice. . . . The total income does not exceed the median income of the practicing engineer and does not approach very closely even the lower limit of the income of the maximum 25 per cent of engineers in practice. . . . If we are to raise the general standard of our teaching personnel above the present level . . . we must offer salaries which are at least the equivalent of the financial return which the engineering graduate may reasonably expect to receive in practice. . . . We cannot expect a young

man of spirit and ability to enter or remain in the teaching ranks if he must occupy an inferior position as judged by the standards of the social order in which he lives. . . . The scale proposed is based approximately on the values disclosed by the curve for median incomes and by figures for the incomes of the maximum 25 per cent of graduates in engineering practice. . . . For the full professor a minimum salary approximating the present day maximum of most of our engineering colleges is proposed." (See figure on page 81.)

The committee thus recommends a salary scale intermediate between the earnings of the average practicing engineer, and those of the engineer three-quarters up in the scale of ability.

The median figures in the table below represent the salary or earnings of the "average" man; as many made more than this as made less. The figures for the more successful practicing engineers give in each case the *lower* limit of the group; all in the group made this income or more. Figures for earnings are based on individual reports and are believed to be reliable; they appear in round numbers in the table since they are read from a smoothed curve.

<i>Years after graduation</i>	<i>Teachers median</i>	<i>Engineers median</i>	<i>Engineers highest 25%</i>	<i>Engineers highest 10%</i>
0	\$1,500	\$1,475	\$ 1,500	\$ 1,800
5	2,000	2,860	3,500	4,200
10	2,550	4,000	5,100	8,000
15	3,100	5,000	7,500	12,000
20	3,600	5,900	10,000	17,500
30	4,225	7,500	15,000	30,000

Proposed Salary Scale for Teachers of Engineering.

Instructor . . .	\$1,500 to 3,500	1 to 6 years after first degree. Annual advance.
Assistant Professor .	4,000 to 5,500	8 to 14 years after first degree. Advance at two year intervals.
Associate Professor .	6,000 to 6,500	17 to 20 years after first degree. Advance at three year intervals.
Professor . . .	7,500 to 12,000	

Salary Scale in the United States Army and Navy

In the following tabulation, length of service for both Army and Navy is reckoned from graduation from West Point or Annapolis. Officers receive advanced or postgraduate training without cost and while drawing the pay of their rank. Military salaries given below are for married men. Bachelors without dependents receive somewhat less. So far as the Army is concerned these figures represent the money which an officer receives when assigned to duty at a station which is not a regular Army Post. Retirement allowance is three-fourths of base pay. Retirement allowance of a Colonel is \$4,500.

Promotion is by seniority in the Army through rank of Colonel and in the Navy through rank of Lieutenant Commander. Promotion to grades above these is by selection.

Second Lieutenant, Army; Ensign, Navy; with three years of service	\$2,496
First Lieutenant, Army; Lieutenant Junior Grade, Navy; with 7 years of service	3,352
Captain, Army; with 9 years of service	4,162
Major, Army; Lieutenant Commander, Navy; with 15 years of service	5,598
Lieutenant Colonel, Army; Commander, Navy; with 22 years of service	6,813
Maximum salary of Lieutenant Colonel	7,200
Colonel, Army; Captain, Navy	7,200
Brigadier General, Army; Rear Admiral, Navy	7,500
Major General, Army; nine highest Rear Admirals, Navy	9,700

(Figures quoted from *Army Register*, 1926, pp. 836-837; 1927, pp. 850 ff.)

Qualifications and Salaries in the Professional and Scientific Service of the United States Government

(1) Junior professional grade. Salary, \$1,860 to \$2,400.

Performing, under immediate supervision, simple and elementary work requiring professional, scientific, or technical training.

(2) Assistant professional grade. Salary, \$2,400 to \$3,000.

Performing, under immediate or general supervision, individually or with a small number of subordinates, work requiring professional, scientific, or technical training, previous experience, and limited exercise of

independent judgment. Recent examinations have specified at least two years of post-graduate professional experience, for one year of which a year of graduate study may be substituted.

(3) Associate professional grade. Salary, \$3,000 to \$3,600.

Performing, individually or with a small number of trained assistants, under general supervision but with considerable latitude for the exercise of independent judgment, responsible work requiring extended professional, scientific, or technical training and considerable previous experience. Recent examinations have specified at least three years of post-graduate professional experience, for which post-graduate study may be substituted year for year up to two years.

(4) Full professional grade. Salary, \$3,800 to \$5,000.

Performing, under general administrative supervision, important specialized work requiring extended professional, scientific, or technical training and experience, the exercise of independent judgment, and the assumption of responsibility for results, or for the administration of a small scientific or technical organization. Recent examinations have specified at least five years of post-graduate professional experience, for which post-graduate study may be substituted year for year up to three years.

(5) Senior professional grade. Salary, \$5,200 to \$6,000.

Acting as assistant head of a large professional or scientific organization, or as administrative head of a major subdivision of such an organization, or as head of a small professional or scientific organization, or serving as consulting specialist, or independently planning, organizing, and conducting investigations in original research or development work in a professional, scientific, or technical field. Recent examinations have specified at least eight years of post-graduate professional experience, for which post-graduate study may be substituted year for year up to three years.

(6) Chief professional grade. Salary, \$6,000 to \$7,500.

Acting as scientific and administrative head of a major professional or scientific bureau or as professional consultant to a department head, commission, or board dealing with professional, scientific, or technical problems.

(7) Special professional grade. Salary, \$7,500.

Duties and requirements are more responsible and exacting than those of grade six.

The United States Government has always offered only a low level of compensation for professional, scientific, and technical

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service, and its difficulties in securing and retaining high grade men are well known.

(Legislation enacted since this report was written has materially increased the scale of government salaries, making them now generally superior to corresponding positions in the colleges and universities.)

Salaries of Intermediate Executive Officers and Technical Heads in Life Insurance Companies of Hartford

		<i>Vice President</i>		<i>Secretary</i>		<i>Actuary</i>		<i>Medical Director</i>
Aetna	8	\$16,900	2	\$ 7,400		\$13,000		\$11,900
Conn. General . .	3	14,750	4	9,700		7,900		10,000
Conn. Mutual . .	2	14,500	2	7,500		9,000		8,500
Phoenix	3	13,800		8,000		8,000		7,500
Travelers	5	32,000		24,000		15,000		13,000

The figures are taken from the New York Insurance Report of 1926, for the year 1925. Where more than one person is employed the figures give the median salary expressed in round numbers for the number of men indicated before the salary figure.

Salaries Paid in 1928 by Some Public Service Corporations in New Haven and by the Service Departments of the University

New Haven Gas Light Company

7 foremen (at fifty weeks a year)	average	\$1,700
5 principal foremen	average	2,650
6 heads of departments	average	3,825
4 superintendents	average	4,800
5 principal executive officers	average	9,900

Southern New England Telephone Company

Minor supervisory officials	about	\$2,000
Wire chiefs, foremen, etc.	\$2,500 to	4,000
Managers of large exchanges, some headquarters staff	4,000 to	5,000
District superintendents, some headquarters staff . .	7,000 to	9,000

Yale University Service Departments

Firemen	\$1,440 to \$1,500
Engineers	1,750 to 2,250
Painters	1,870
Tinsmiths	1,980 to 2,090
Steam fitters, plumbers, etc.	2,090 to 2,200
Mechanical foremen	2,310 to 2,530

Annual Earnings of Union Labor, New Haven, Connecticut

Year	1913	1927	Percentage Increase
Cost of Living Index	100	172	72

Building Trades

Laborers . . . . .	....	\$1,540	...
Hod carriers	\$1,040	1,540	49
Plasterers' laborers . . . . .	....	1,750	...
Wiremen (inside)	920	2,060	123
Painters	840	2,060	143
Carpenters	980	2,320	136
Stone-cutters	980	2,570	162
Bricklayers	1,240	2,830	129
Plasterers	1,240	2,830	129
Structural iron workers	1,290	2,830	120
Average, omitting laborers	1,060	2,380	124
Average, including laborers . . . . .	....	2,230	...

Other Trades

Electrotypers, finishers	950	1,830	93
Electrotypers, molders	950	1,830	93
Compositors, book and job	910	1,780	95
Compositors, newspaper	1,050	2,010	91
Typesetting machine operators, book &c.	1,030	1,780	72
Typesetting machine operators, newspaper	1,050	2,010	91
Sheet metal workers	980	2,570	162
Average	990	1,970	99

(Figures from *U. S. Monthly Labor Review*, September, 1927. Annual earnings are here calculated in round numbers, assuming employment for nine-tenths of the year. In some of the building trades men are probably out of work for a longer time, and the annual earnings here given are too high; in other trades the reverse is probably true. The increase is reckoned with respect to the figures of 1913 as base 100.)

Salaries of Judges

In Connecticut judges of the upper courts now receive \$12,000; in Massachusetts judges of the superior court receive \$10,000, of the supreme court, \$12,000. In Pennsylvania judges of the supreme court receive \$17,500, and of the superior court, \$16,000. In Philadelphia and Pittsburgh common pleas judges receive \$11,000. In New Jersey judges of the supreme court are paid \$18,000, and the circuit court, \$16,000.

In New York State, even outside New York City, salaries are much higher.

Salaries of Judges in the State of New York

Members of the Court of Appeals (at Albany) . . .	\$25,000
Members of the Supreme Court and Appellate Division	22,500
Members of the City Court	17,500
Members of the County Court	22,500
Members of the Children's Court	17,500
Members of the Municipal Court	\$10,000 to 12,000
Magistrates	10,000

Federal Judiciary Salaries

The following table gives the salaries of certain judges of the United States as they existed prior to January 1, 1927, and the increased salaries as fixed by Act of Congress, December 13, 1926, Chapter 6, Section 1.

	<i>Previous Salary</i>	<i>Present Salary</i>
Chief Justice of the United States	\$15,000	\$20,500
Associate justices of the Supreme Court	14,500	20,000
Circuit judges	8,500	12,500
District judges	7,500	10,000
Chief justice of court of claims	8,000	12,500
Other judges of court of claims	7,500	12,500
Presiding judge of Court of Customs Appeals . . .	8,500	12,500
Associate justices of Court of Customs Appeals . .	8,500	12,500
Judges of the United States Customs Court, formerly the Board of General Appraisers of the United States	9,000	10,000

Corresponding positions in England pay from \$25,000 to \$50,000. The Chairman of the Committee on the Judiciary, House of Representatives, in discussing the need for the salary increase, described a situation so closely analogous to that confronting university professors that it deserves to be quoted here.

(Sixty-ninth Congress, First Session. House of Representatives Report No. 232, pp. 2-3; February 9, 1926. By Hon. George S. Graham, Chairman, Committee on the Judiciary, House of Representatives.)

The ablest and the best of our citizens and those most learned in the law are needed to fill these great positions of power and responsibility. How are men of this class to be secured and retained on the bench? Is it reasonable to suppose that men who have proved their worth in practice will surrender incomes many times as great for the honor of a Federal judgeship? This will sometimes happen; but is it fair to ask these men to undertake these labors, granting the honor to be great, when the salaries attached will not enable them to maintain themselves and their families in reasonable comfort in the manner and station in life to which they are accustomed and without most serious concern over current needs? Do we wish our Federal judges to come only from the class of wealthy lawyers who can afford the inadequate salary in return for the honor of the place? To expect this of our Federal judges is neither fair to them nor to the American people. Indeed the laborer is worthy of his hire. The American people should not expect such sacrifices from any of their servants.

What are the alternatives? There are two—for no one will admit that the American people will knowingly demand the life-long service of men while denying to them reasonable compensation. We must therefore say that the people want a lower standard of service, a less able judiciary, a bench drawn from the mediocre or unsuccessful members of the bar or that they will pay to their Federal judges salaries more nearly commensurate with the worth of the men whom they call to their service. At the present time, that service which has increased so seriously in recent years, is entitled to greater compensation than ever before, both because of its increasing importance and because of the reduced value of established salaries. . . .

In this enlightened year of 1924, when in our largest cities a living apartment consisting of five rooms, kitchen, and bath, located in only a moderately desirable neighborhood, costs \$3,000 per year for rent alone, a Federal judge is expected to maintain a home and to rear and educate a family on a salary of \$7,500. Is it any wonder that a judge who is dependent on his salary is forced either to endure the most poignant financial worries and humiliations or to resign from the bench as many have done in order to make a decent living?

APPENDIX D

(Relating to Chapter XIII)

TEACHER-STUDENT RATIOS AND THE TUTORIAL SYSTEM AT OXFORD AND CAMBRIDGE

A POSSIBLE objection to stabilization of the size of the faculty is that it might impede the introduction of new educational methods and particularly those of intensive teaching. The information contained in this appendix demonstrates that on the contrary it is possible for universities to maintain fairly low teacher-student ratios, and yet to use, within limits, even the most intensive of all methods of teaching, the tutorial system, provided that it is balanced by very large lecture classes.

The data here presented were obtained directly from university and college officers at Oxford and Cambridge. Thanks are due them for the great amount of time and care which they devoted to collecting and formulating this very significant information as to teacher-student ratios and the relative numbers of "honors" and "pass" students. The English universities do not publish statistics of enrollment like those in the catalogues of the more closely integrated American universities. To compile such data it is necessary to draw on and compare many different sources, including twenty-one colleges at Oxford and eighteen at Cambridge. Some of the figures are therefore approximations; but coming from the authorities who supplied them they are close and reliable approximations.

Distribution and Ratio of Teachers and Students in Oxford

<i>Pro- fessors</i>	<i>Readers, Lecturers, and Tu- tors (a)</i>	<i>Total Teachers</i>	<i>Honors Students</i>	<i>Pass Students</i>	<i>Total Students (b)</i>	<i>Ratio Teachers to Students</i>
70	230	300	3379	705	4800	1 : 16

(a) The readers, lecturers, and tutors are comparable to the assistant and associate professors in an American university. Every professor, reader, or tutor is a fellow of a college, but of only one college in each case.

(b) Including about 700 graduate students.

Distribution and Ratios of Teachers and Male Students Among the Principal Groups or "Schools" at Cambridge

	Professors	Readers, Lecturers, and Demonstrators	Total Teachers	Honors Students	Ordinary Degree Students	Total Students	Ratio Teachers to Students
GROUP I							
Literature, languages, art, music, and divinity	19	69	88	833	221	1054	1:12
GROUP II							
Social and moral sciences, history, and law	11	44	55	1217	377	1594	1:30
GROUP III							
Mathematics, engineering, and aeronautics	7	54	61	660	163	823	1:12
GROUP IV							
Physical and biological sciences, agriculture and forestry	23	98	119	859	521	1380	1:12
OTHER SUBJECTS				137	71	208	
Totals	60	263	323	3706	1353	5059	1:15.6

The two colleges for women at Cambridge have together nearly 500 students. Inclusion of these students and their collegiate teachers would not considerably change the ratios in this table.

For comparison with the general figures for Oxford and Cambridge those of Yale University are as follows: professors 126, associate and assistant professors 157, instructors 151, total active full-time faculty 434. Total number of students 5583.* Ratio of teachers to students 1 to 12.9.

The ratios of teachers to students in various studies at Cambridge are approximately:

* *General Catalogue of Yale University*, 1928-1929, pp. 655, 656.

Oriental languages	1 : 1	Physics	1 : 27
Classics	1 : 9	Economics	1 : 29
English	1 : 12	History	1 : 29
Mathematics	1 : 15	Zoölogy	1 : 30
Chemistry	1 : 16	Law	1 : 39
Engineering	1 : 18	Anatomy	1 : 45
Geology	1 : 21	Physiology	1 : 50
Botany	1 : 24	Biochemistry	1 : 64

Among the fields of teaching and research in which Cambridge is preëminent are mathematics, physics, physiology, and biochemistry. In all of the subjects here listed the tutorial system is applied, but the student is expected to study to a considerable degree independently, once his plan of reading is laid out. He may see the college fellow, who is supervising his study, once a week; or it may be only once or twice a term. He usually has the same tutor throughout the whole of his University course, as all his studies are within one general subject. Only one or two courses of lectures are taken in any one term by a student in the humanities, and only three, or at most four, by a student in science. The normal period of residence for the attainment of the B.A. degree is three years; out of 5,059 male undergraduates at Cambridge less than 150 are in the fourth year. Both at Oxford and Cambridge more than 70 per cent of the undergraduates are studying for the "honors" degree and less than 30 per cent are candidates merely for the "pass" degree, or ordinary B.A.

The following extracts from the appendices to the *Report of the Royal Commission on Oxford and Cambridge in 1922* (pages 22 to 26), indicate the system of teaching and the teacher-student ratio at Oxford: In estimating the amount of teaching per tutor, "one hour of individual tuition per pupil per week may be taken as the basis of calculation. . . . A full time tutor should not have more than eighteen hours of teaching [tutoring] and lecturing per week. Allowing three hours per week for lectures, this would mean on the average one tutor to every fifteen students. . . . A tutor should have some time free for advanced work. . . . The tutorial system has undergone a remarkable development during the last fifty years. Fifty years ago most of the undergraduates at most Colleges were Pass

men and those who were reading for honours were reading mainly for Classics or Mathematics. During the ten years preceding the war the Pass man was rapidly disappearing; in a majority of Colleges he had wholly disappeared; *i.e.*, the University had become very largely an Honours University. . . . The weekly essay which forms so marked a feature in the teaching for the Schools of Literae Humaniores, Law, Modern History and Theology is taken by the College Tutors." Collecting the material for these essays and writing them is the student's chief work at Oxford. In method, scope, and grade the work of an undergraduate student reading for honors in an English university is similar to that of a student studying for an M.A. in the graduate school of an American university. "In all subjects, including Natural Science, apart from lectures, the Tutor gives his pupils an hour a week for individual instruction and discussion. . . . The lecturing work done for the University by College Tutors is professorial in character. That is, it is work which in almost all other Universities is done by the Professors themselves; these lecturers are frequently scholars of the first rank, and they deal with subjects as advanced as those treated of by the Professors. . . . Fifty years ago the College Tutor lectured solely to pupils from his own College. For many years past, all Honour lectures have been open to undergraduates practically from all Colleges. . . . It is probably a very general idea that while College Tutors lecture and teach, it is the Professors who do all the work of research. This is a complete mistake. Much of the research work that has been done in the University in the past twenty years has been done by College Tutors." The professors do no tutoring and often little lecturing. They are eminent scholars, supplementary to the regular teaching system of the college tutors, or else directors of the scientific laboratories of the University. The status of tutors in relation to professors is indicated by the recommendation of the Commission that "a Professor should in no case receive a less salary than the maximum provided for a College Tutor," which, according to the Commission's schedule, is \$5,750 after twenty years' service.

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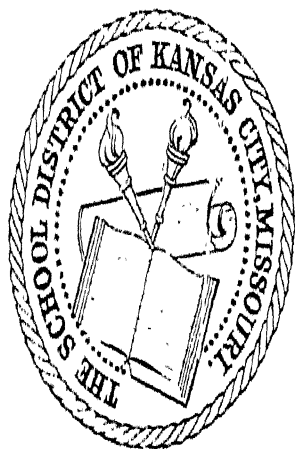
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